LITERATURE OF MANUFACTURERS

Catalogues, bulletins and other direct advertising material recently issued.

Manufacturers are requested to send copies of new trade literature promptly to Electric Refrigeration News.

American Thermos Bottle

Illustrations of 11 models of Thermos display jars are included in a small folder sent out by the American Thermos Bottle Co., Norwich, Conn.

C. M. Co.

C. M. Co. of America, Inc., Chicago, Ill., has issued a booklet describing the properties of rubber foam, or caoutchoucmousse, as it is generally known to the trade. Rubber foam is composed of gas and rubber. The booklet lists the various uses of rubber foam, among which is insulation for refrigerators, and padding for sporting goods.

Domestic Utilities

Domestic Utilities, 2117 Charles Street, Baltimore, Md., has distributed a small folder which presents the advantages of D. U. soap and cleaner-polish to electric refrigerator owners.

Esco

Four milk cooling cabinet models, especially designed to meet the requirements of the retail milk dealers, and their respective capacities, are announced in a folder issued by Esco Cabinet Co., West Chester, Pa. Cooling capacities of the various models range from 130 to 500 quart bottles per 24 hours. Storage capacity ranges from 65 to 250 quart bottles and the ice making capacity ranges from 50 to 150 lbs. per 24 hours. Another folder enumerates the results of tests given two cans of milk placed in water at 48° and two more cans placed in an Esco cabinet controlled at 40°. The four cans were allowed to stand all night. When the test was taken in the morning, the milk in the cans taken from water contained 85,000 bacteria per c. c., while the milk taken from the Esco cabinet contained only 2,000 bacteria per c. c.

Liquid Cooler

Liquid Cooler Corp., 6527 Russell Street, Detroit, Mich., has issued explanatory charts showing vertical and horizontal multiple installations for Temp-Rite liquid coolers. Instructions regarding single unit installations are also given.

The Temp-Rite unit is marketed in four models that can be installed in fountains of wall and pedestal types. Model 22 (S or M) is placed completely within the fountain or fixture. Model 100 is a pedestal type, while models 110 and 120 are wall types (S or M).

Reading Steel Casting

Catalog 330, released by Reading Steel Casting Co., Inc., Bridgeport, Conn., illustrates and describes, for the first time, combined Reading-Pratt & Cady products. The catalog displays Pratt & Cady bronze valves, asbestos packed cocks, iron body valves, factory mutual valves and cast steel valves and fittings.

S. & S. Products

An "All Syze" bottle icer, equipped with wide riding track, special galvanized guidewires, sanitary sediment zone and having a capacity of either 80 or 128 bottles, is illustrated in a booklet sent out by the S. and S. Products Co., Lima, Ohio. "All Syze" can be used with either ice or electric refrigeration. The cabinets are attractively finished in blue and gray porcelain.

Servel

A new twenty-eight page booklet, outlining the operation of Electrolux refrigeration, has just been issued by Servel Sales, Inc., of Evansville, Indiana. The title of this new book is "The Secret of Silence in Refrigeration," and explains in a simple and comprehensive manner all operating principles of the refrigerating system. The book is fully illustrated with diagrams and charts, and also contains a complete view of the eight Electrolux household models.

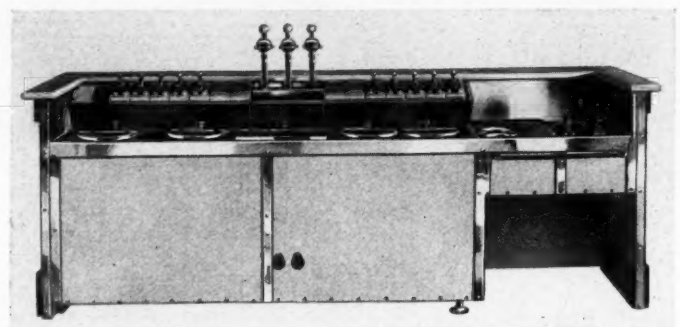
Victor Products

Victor Products Corp., Hagerstown, Md., has released a booklet which describes insulation and hardware of the Standard Victor Cooler Door.

Wheeling Steel

Wheeling Steel Corp., Wheeling, West Virginia, has had a booklet published which describes the uses and physical structure of Cop-R-Loy, the copper alloyed steel which it manufactures.

Valerius Makes Addition To Soda Fountain Line



A new fountain designed by Valerius Corp., Jefferson, Wis., has just been announced.

The top of this fountain is made of heavy Monel metal and the ice cream compartment covers are made of bakelite or Monel metal. The accessories, such as draft arms, pumps and crushed fruit jars, are chromium plated.

The dipping temperature is uniform throughout the entire volume of bulk ice cream. The top portion of the ice cream in the can is of the same hardness as that in the center or bottom.

It has a low temperature jar rack, which keeps the fruits and syrups properly refrigerated. The jar rack has direct contact with the brine. Another feature is the "brine level control" system.

Brick ice cream is kept at below zero, bulk at proper dipping temperature and bottled goods at 38 degrees—all with one boiler or expansion coil.

OMAHA G. E. DISTRIBUTOR HOLDS BIG CONFERENCE

Omaha, Nebr.—The Storz Electric Refrigeration Co., here, distributors of the General Electric refrigerator for Nebraska and western Iowa, called in the salesmen of the company for an all-day conference, September 25. Two hundred answered the call, and at the close of the session were given a banquet by the company at the new Paxton Hotel. The dinner was a speechless affair. Good music and a dance revue by twelve girls, "all-steel models," served to enliven the occasion.

In an address during the afternoon, A. C. Mayer, of Cleveland, General Electric manager of the merchandise division, stated the improved method of food preservation has been the means of lengthening the life of mankind fifteen years, during the last half century. "Scientific research," said Mr. Mayer, "has proved there is a specific temperature at which foods can best be preserved. The exact temperature has not yet been determined, but is known to exist between 32 and 50 degrees Fahrenheit. Keeping food at the proper tem perature would also serve to save the twenty per cent of food waste that exists in the average family of today."

The address of welcome was delivered by A. C. Storz, president of the Storz Electric Refrigeration Co. E. J. Nellor, general manager of the company, presided at the meetings.

During the meeting it was announced "the Storz Company has earned the highest sales standing among G. E. distributors from Cleveland to the Pacific Coast."

REQUESTS FOR INFORMATION

Readers who can assist in furnishing correct answers to inquiries, or who can supply additional information, are invited to address Electric Refrigeration News, referring to the query number.

Cabinet Manufacturers

Query No. 289—"Please give me the names of some manufacturers that build cabinets. I have a patented cold drink dispensing machine and would appreciate you giving me this information. The dispenser is a plain square cabinet and has wheels inside.

Note—See advertisements in this issue. —Editor.

Porcelain Enamel Steel Sheets

Query No. 290—"Will you please give us the names of manufacturers of porcelain enamel steel sheets."

Freezel Electric Refrigerator

Query No. 291—"Will you kindly send us the name and address of the company manufacturing the Freezel electric refrigerator?"

Answer—Freezel Corp., 483 Main St., Gardner, Mass.

Hamilton Beach Barmixer

Query No. 292—"We are interested in the sale of the Hamilton-Beach No. 10 Barmixer and would appreciate receiving the address of the manufacturer."

Answer—Hamilton-Beach Co., Racine, Wisconsin.

SERVEL EMPLOYES FORM 8-TEAM BOWLING LEAGUE

Evansville, Ind.—Employees of Servel Sales, Inc., have just completed organization of a factory bowling league for the 1929-30 season. Eight teams have been formed, which meet on Monday evening of each week.

Names of the teams have been taken from various products which are manufactured by the company, viz.: Electrolux, Auto Bodies, Gas Engines, Refrigerator Cabinets, Ice Machines, Water Coolers, Tanks and Coils, and Chilling Sections.

Team captains selected from averages obtained by two preliminary games, are: Leon Wallace, G. Bodenmuller, Lewis Bohn, J. C. Mescall, D. E. Williams, Howard Priest, H. E. Burns, and W. A. Rorison.

The league will extend over a period of twenty-eight weeks. At the conclusion of the first fourteen games, prizes will be divided among the winning teams and the groups reorganized for the spring season.

Don S. Haering, employment manager, is acting secretary for the league and will have full charge of the banquet and other arrangements.

Correction

In the September 11 issue of the NEWS in an article which appeared on page 8, entitled "C. C. Harvey Co. Gets Order for 70 Units," the number of Servel units placed in the Newhall apartments by the Boston firm was erroneously stated.

Frank M. Knott, General Electric dealer in Brookline, Mass., operating under the Electric Refrigerator Co. of New England, Boston, has installed 60 General Electric refrigerators in the Newhall apartments during the past two years. C. C. Harvey Company's share of the installation consisted of two water-cooled machines and 16 individual coils.

CONVENTION DATES

American Engineering Council, meeting, Washington, D. C., Oct. 24-25, L. W. Wallace, 26 Jackson Blvd., Washington, D. C.

American Gas Association, annual meeting, Atlantic City, N. J., Oct. 14-18, Kerwin R. Boyes, 420 Lexington, New York City.

American Institute of Electrical Engineers, winter convention, New York, N. Y., Jan. 27-31, F. L. Hutchinson, 33 W. 39th St., New York City.

American Society of Mechanical Engineers, annual meeting, New York City, Dec. 2-6, C. W. Rice, 29 W. 39th St., New York City.

American Society of Refrigeration Engineers, 25th annual meeting, New York City, Dec. 16, David L. Fiske, 37 W. 39th St., New York City.

National Association of Ice Industries, annual meeting, Boston, Mass., Nov. 12-15, Leslie O. Smith, secy., 163 W. Washington St., Chicago, Ill.

National Association of Practical Refrigeration Engineers, annual convention, Pittsburgh, Pa., Nov. 4-7, B. H. Fox, 5707 W. Lake St., Chicago, Ill.

National Electrical Manufacturers' Association, annual meeting, Washington, D. C., Oct. 7-11, A. E. Waller, 420 Lexington Ave., New York City.

Third Annual Montreal Household Show, Montreal, Que., Canada, Oct. 21-27, Montreal Radio Show, Windsor Hotel, Montreal, Que.

KENSLEA TRADE SCHOOL OFFERS THREE MONTH REFRIGERATION COURSE

Boston—Kenslea Trade School, 29 Cambria St., is offering an evening course on gas and electric refrigeration which extends over a period of three months.

The course covers domestic and commercial refrigeration, old and new methods of refrigeration, gas and electric refrigeration, low pressure control, refrigerants and cooling units, condensers and compressors, installations, electrical and plumbing instructions.

SMITH ICE MACHINE CO. OPENS NEW YORK OFFICE

Smith Ice Machine Co., which purchased the Electro Vacuum Refrigerator Corp., 202 East 43rd St., New York City, September 1, has opened an office and salesroom at 655 Second Ave., New York City.

E. O. Smith, president of the new company, has been connected with the electric refrigeration industry since 1915. He started with Isko Co., at Detroit, Mich., and later transferred to its engineering department at Chicago. When the Electro Vacuum Refrigerator Corp. assumed the Eastern distributorship of Isko, Mr. Smith went with it as engineer.

Smith Ice Machine Co. will manufacture and sell only commercial electric refrigeration machines which range from 200 pounds to two and one-half ton capacities.

REX INTRODUCES TWO NEW CABINET MODELS

Rex Manufacturing Co., Connersville, Ind., has introduced two new cabinets, Models P50 and L. P. 4. These cabinets have straight wire shelves, pan type door lining, full crown top and DeLuxe hardware. They are convenient sizes for either apartment or residence use.

LOUISVILLE DISTRIBUTOR OPENS NEW G. E. BRANCH

Evansville, Ind.—The Electric Refrigeration Company of Louisville, Ky., distributor for General Electric refrigerators, recently opened a retail sales and service branch at 627 Main Street, here. The new branch has a large, attractive display room. E. E. Lambert, wholesale manager, Louisville, was in charge of the opening.

Turner E. Bethel Sold First G. E. Commercial Unit

Turner E. Bethel, sales manager of the Commonwealth Refrigeration Co., distributors of General Electric refrigerators at Richmond, Va., has the distinction of making the first sale of the new General Electric commercial model refrigerator.

This sale was made by Mr. Bethel last October, even before the final designs for the new refrigerator had been completed. Equipped with only a rough estimate of the new commercial refrigerator specifications, he successfully explained the unit to the Richmond Y. W. C. A., who made the purchase sight unseen.

THE CONDENSER

ADVERTISING RATE fifty cents per line (this column only).

SPECIAL RATE if paid in advance — Positions Wanted — fifty words or less, one insertion $2.00, additional words four cents each. Three insertions $5.00, additional words ten cents each. All other classifications—fifty words or less, one insertion $3.00, additional words six cents each. Three insertions $8.00, additional words sixteen cents each.

POSITIONS AVAILABLE

SALES MANAGER—In wealthy suburban New York territory to build up distributor sales force. Man qualifying will be given unlimited power and paid on basis of his accomplishment. Only man willing to work on commission basis will be accepted. Write full information of yourself, giving sales record, experience, reference, etc. Box 199.

POSITIONS WANTED

CHIEF ENGINEER AVAILABLE—Ten years' experience in electric refrigeration with leading manufacturers in charge of engineering design and production methods. Wishes to communicate with manufacturer east of St. Louis. Box No. 180.

THREE YEARS' EXPERIENCE at factory on service, two years as branch service manager, two years as district sales manager. Have been in the Minneapolis territory for past four years and have been connected with two of the leading electric refrigeration firms. Can give references from former connections. Consider any territory. Address, Box No. 196.

Position wanted as sales manager for Kelvinator distributor. Years of experience. Have sales and engineering ability. Available at once. Box 200.

CHIEF ENGINEER with twelve years' experience in electric refrigeration is available to large manufacturers. Address, Box No. 195.

COMPETENT REFRIGERATION MAN Desires connection with manufacturer as sales representative in the Western States. Manufacturing and commercial as well as sales experience. Six years on the Coast. Highest references. Box 202.

Subscription Order

ELECTRIC REFRIGERATION NEWS,
550 MACCABEES BUILDING, DETROIT, MICH.

Please enter subscription to Electric Refrigeration News.

United States and Possessions:
☐ $2.00 per year. ☐ Three years for $5.00

All other Countries:
☐ $2.25 per year. ☐ Two years for $4.00

I am enclosing payment in the form of
☐ Check ☐ P. O. Order ☐ Cash

Name.....

Street Address.....

City and State.....

Remarks:.....

ELECTRIC REFRIGERATION NEWS

The business newspaper of the refrigeration industry

VOL. 4, NO. 4, SERIAL NO. 80 | Copyright 1929, by Business News Pub. Co. | DETROIT, MICHIGAN, OCTOBER 23, 1929 | Entered as 2nd class matter August 1, 1927, at Detroit, Michigan. | PRICE FIFTEEN CENTS

DAIRY EXPOSITION IN ST. LOUIS DRAWS CROWD OF 300,000

American Car and Foundry Co. Exhibits Ice Cream Cabinets

St. Louis, Mo.—Several new models of electric refrigeration as applied to the dairy industry, were introduced at the National Dairy Exposition held in conjunction with the National Poultry Show, St. Louis National Horse Show, and the St. Louis Fair, Oct. 12 to 19.

C. Nelson Mfg. Co., St. Louis, introduced an aerator-refrigerator for use on the dairy farm. Aerating capacity is 80 gallons in 90 minutes and cools from 95 to 45 degrees. Storage capacity is eight 10-gallon cans and the temperature can be held at any point down to 20 degrees above zero. The size is 3 feet in width, 5 feet, 8 inches high and 6 feet, 6 inches long.

An ice cream cabinet which has recently been placed on the market was displayed by the American Car and Foundry Co., in 4- and 8-hole sizes. The 8-hole cabinet is refrigerated by a ¼ horsepower motor, the 4-hole by a 1/6 horsepower motor. Insulation is of cast cork. A one-ton Indiana Truck, fitted and insulated for ice cream delivery was also shown by the American Car and Foundry Co. It is refrigerated by dry-ice, using 80 pounds, and has an ice cream capacity of 325 gallons.

Two displays were shown by the Del-Home Light Co., St. Louis Frigidaire distributor, one showing only commercial models, the other domestic. The commercial display included the full line including milk and water coolers, and ice cream cabinets. Several mounted compressors in operation were shown. A Gruendler case, Frigidaire equipped, and Nagle standard and whirlpool coolers, both Frigidaire equipped, were included in the commercial display.

Electrolux refrigerators were displayed by the Laclede Gas Light Co., St. Louis, and by the Shelgas Utilities Division of the Skelley Oil Co.

Eight models of Kelvinator were shown by Kelvinator-St. Louis, Inc. Three fountains, bottle, bubbler, and faucet were displayed. Two Esco cabinets, Kelvinator equipped, and several mounted compressors were shown. The Union Electric Co., St. Louis, displayed two household model Kelvinator refrigerators together with other household equipment.

A Superfex refrigerator was shown by the Perfection Stove Co., Cleveland, a milk chiller, cooling milk to 40 degrees at the rate of one gallon in three minutes, using kerosene and operating similarly to the Superfex refrigerator was displayed.

James & Co., Inc., General Electric distributors, showed four commercial models and five household models. Two models showed the coils exposed and displayed the working of the coils. A nickel finished model was displayed in household size. Two milk coolers were displayed. The United States Department of Agriculture used a General Electric refrigerator in the department of Utilization of Dairy By-Products in Bakery.

The Harry Hussman Co. displayed a walk-in type cooler and a counter display case, both Kelvinator equipped.

An electrical ventilating system for cooling the dairy barn was shown by Hunt-Helm-Ferris & Co., Inc., Harvard, Ill. The fan, fitted with automatic shutters and speed regulator is controlled by a thermostat that can be set at the temperature desired.

The show was held in the Arena, just completed, and the formal opening of the building was combined with the opening of the show. The building seats 21,000 in the auditorium. The displays were in the corridors surrounding the auditorium which is 1,175 feet around, and in two annexes each having a capacity to accommodate 20,000. Electrical installation of the building has a connection load of 6,605,000 watts. One hundred seventy reflector lights, each of 1,000 watts, are used on each side of the building.

It was estimated from gate receipts the first four days, that 300,000 people would attend the show during the week.

UNIVERSAL COOLER LETS CONTRACT FOR ADDITION

Detroit, Mich.—Because of increased production requirements, a contract was awarded on Oct. 15 to the Beyster Land Co. for an addition to the present plant of Universal Cooler Corp., Eighteenth and Howard Sts. This addition, when completed, will give practically 100 per cent more manufacturing space to the company and will permit a complete revamping of present production lines. The contract calls for completion of the addition by Dec. 1, 1929.

Symbols of American Industry and Ideals

Photo Courtesy of Detroit News

Ford *Hoover* *Edison*

IN this issue of Electric Refrigeration News we have endeavored to present to readers in the United States a picture of the present development and the future opportunities for refrigeration in other countries. Another aim, equally important, has been to express to our readers abroad, the interest of American manufacturers in extending refrigeration benefits throughout the world.

Realizing the fundamental necessity for mutual understanding as a basis for successful business relations, we felt the need for some broad expression of the spirit of American industry as a foreword to the detailed discussion of mechanical things and commercial methods.

While in the process of compiling these pages there occurred in Detroit a most dramatic event. On Monday, October 21, this city occupied the center stage in an international celebration of "Light's Golden Jubilee," commemorating the fiftieth anniversary of the invention of the electric lamp by Thomas A. Edison.

Through the generosity of Henry Ford, friend of Edison, the original laboratory in which Edison made his momentous discovery was transported from Menlo Park, N. J. to "Greenfield," a complete early American village constructed by Mr. Ford as a permanent museum. Here Mr. Edison, now 82 years of age, re-enacted his historical experiment. President Herbert Hoover journeyed from Washington to Detroit to witness the ceremony and to honor, by his presence, the famous inventor.

Ford, Hoover, Edison—these three names are known throughout the civilized world. All three are known for their unceasing labor and their service to humanity. Edison stands for applied electricity and all that it means to the present age. Ford personifies American mass production methods. Hoover, engineer, food-conserver, foe of waste, foreign trade developer,—his name recalls many activities which bear upon refrigeration.

These three men, in their ideals and accomplishments, symbolize the service which the refrigeration industry has to offer to the world.

SWEDISH INTEREST IN ELECTROLUX IS ACQUIRED BY SERVEL

Evansville, Ind.—Servel, Inc., has purchased the entire Swedish interests in patent rights to the Electrolux absorption refrigerator in the United States, its possessions, Cuba and Canada. Servel, Inc., has issued the following statement:

"Servel, Inc., has been able to acquire the entire outstanding Swedish interest in Electrolux Servel Corp., consisting of all of the class A common shares. The Electrolux Servel Corp. controls, exclusively, the patent rights to the Electrolux absorption refrigerator.

"The Electrolux absorption refrigerator, popularly known as the gas refrigerator, is operated by any controllable form of heat and is without moving parts.

"The consideration for the acquisition by Servel, Inc., of the Swedish half common stock interest in Electrolux Servel is 278,000 shares of Servel common stock (voting trust certificates) and $2,840,000 in gold notes, payable yearly commencing December 31, 1930, for $300,000 each year, excepting the fifth maturity which is for $840,000. These notes are convertible into Servel, Inc., common stock, or voting trust certificates, therefore, on the basis of 50 shares of stock for each $1,000 of notes, or on the basis of $20 a share for the stock. The Swedish interests have agreed, immediately upon the ability of the company to deliver the stock (or voting trust certificates) for the notes, to convert the same; which virtually means that Servel, Inc., has acquired the remaining half interest in Electrolux Servel for a total of 420,000 shares of common stock.

"In addition to acquiring the patent rights, Servel, Inc., obtains rights to any future developments in refrigeration and any patents resulting therefrom, which may originate through the Swedish interests in their several laboratories in Stockholm, London and Berlin.

"A stockholders' meeting of Servel, Inc., has been called for November 26 to authorize the increase in common stock from 1,600,000 shares to 2,000,000 shares, which will permit Servel, Inc., to retire the notes given to the Swedish interests by conversion into common stock at $20 per share."

NOVEMBER ISSUES

Nov. 6—Latest developments in refrigerator cabinets—domestic and commercial. Manufacturers are invited to furnish photographs and data pertaining to improvements and new applications. A special directory of cabinet manufacturers will appear in this issue.

Nov. 20—Parts, materials and accessory equipment used in the refrigerator cabinets and machines, or in the operation and control of refrigeration systems. Manufacturers are invited to furnish full information concerning their products.

COPELAND PRODUCTS TO MOVE FACTORY

Detroit, Mich.—The factory of Copeland Products, Inc., manufacturers of electric refrigeration, will be moved to Mt. Clemens, is announced by Louis Ruthenburg, president.

The announcement follows completion of negotiations for the purchase of the National Candy Company's property on Cass avenue, just west of the Grand Trunk track in Mt. Clemens. The new factory was acquired to care for the expansion of Copeland business and will afford an immediate increase of 50 per cent in floor space.

The volume of business the last year taxed the facilities of the present plant on Lycaste avenue to the limit, and necessitated removal to larger quarters. The additional floor space available in the Mt. Clemens plant, with the considerable acreage of unoccupied land, will make it possible for operations to be expanded to several times their present volume without the necessity of considering a new location.

Moving will begin the latter part of this month, Mr. Ruthenburg said. The Mt. Clemens plant will be put in operation early in November.

NEXT CONVENTION OF N. E. L. A. TO BE IN SAN FRANCISCO

Chicago, Ill.—A definite decision to hold the fifty-third convention of the National Electric Light Association at San Francisco the week of June 16, 1930, was reached at the first executive committee meeting of the administrative year, held here September 25. The convention will be held in the San Francisco Exposition Auditorium.

The selection of the convention place and date, the consideration and approval of the association's budget for the current administrative year, and reports from the four National Section Chairmen, Geographic Division representatives and Special National committees was the chief business of the meeting, at which Chairman M. S. Sloan presided.

The National Executive Committee meeting followed meetings held by the Women's Committee, the Executive Committee, Accounting National Section, and the Customer Ownership Committee on Sept. 23, and meetings of the Executive Committee, Public Relations National Section and the Insurance Committee, on Sept. 24.

GENERAL ELECTRIC TO HOLD CONFERENCE WITH CENTRAL STATION MEN

Cleveland, Ohio—A central station conference for executives and merchandising managers of holding companies and the larger operating companies will be held at the General Electric Refrigeration Institute November 4 and 5.

This fall meeting, which will be similar to the spring conference of merchandising managers of central stations held here April 8-9-10, will be devoted to a discussion of electric refrigeration from both the utility's and manufacturer's viewpoints. There will be a free exchange of ideas at the conference and definitely assigned papers will be read.

Interesting messages will be given by outstanding individuals in the industry. P. B. Zimmerman and T. K. Quinn, of the refrigeration department of the General Electric Co., will give talks to the visiting utility men.

NEW SAFETY CODE BEING SUBMITTED TO A.S.A. COMMITTEE

New Draft Shows Influence of Chicago Discussions

VICTORY FOR DR. KEGEL

New York, N. Y.—The proposed national safety code, sponsored by the American Society of Refrigerating Engineers, has been revised to incorporate regulations for the installation of multiple systems in apartment houses and is now awaiting the result of a letter ballot sent out October 15 to the Refrigeration Safety Code Committee of the American Engineering Standards Committee. No announcement has been made regarding the result of the ballot.

It is evident that the lengthy discussions regarding the safety of multiple systems which have been carried on between the Chicago Health Commissioner, the Health Committee of the Chicago City Council and the Special Industry Committee during the past several months, have had a strong influence upon the sponsors of the code. Several provisions are included which are closely in line with the safety ideas of city officials and engineers who have taken a prominent part in the proceedings at Chicago.

Although there have been many ramifications to the bitter controversy which has been raging in Chicago, the fundamental difference of opinion has concerned the quantity of refrigerant to be permitted in a multiple system. Extreme views were taken on this subject. Health Commissioner Kegel demanded that multiple systems be devised so that not more than two pounds of refrigerant could leak out into an apartment in the event of a complete rupture at any point in the system. Certain manufacturers insisted that 100 pounds, 200 pounds, and even larger quantities should be allowed.

The revised code now under consideration indicates that a determined effort has been made to compromise these conflicting viewpoints on the limitation of the quantity of refrigerant. Under the subject of "tests," the specifications are divided so as to vary the regulations for systems having 20, 50, 100 and 200 pounds of refrigerant. The requirements for safety become increasingly strict as the amount of refrigerant goes up.

A special provision has been put in to incorporate the "safety yardstick" set up by Health Commissioner Kegel. This provision is somewhat more liberal in that it sets three pounds, instead of two, as the leakage limit, but it designates the time period as eight hours instead of twenty-four. It is reported that Dr.

(Concluded on Page 18)

NORGE MANUFACTURING OPERATIONS MOVED TO MORSE CHAIN BUILDING

Howard E. Blood, president of Norge Corp., manufacturers of Norge Rotary Electric Refrigerator, and now a division of the Borg-Warner Corp., announces that Norge has now acquired new manufacturing facilities. The Norge manufacturing operations are now being moved into the Detroit plants of Morse Chain Co., another subsidiary of Borg-Warner Corp.

This move is necessitated by the rapid growth of both the Detroit Gear & Machine Co., in whose plants the Norge manufacturing operations have heretofore been conducted, and the Norge Corp. itself, and is part of the far-reaching plan of Borg-Warner to place Norge in the important position in the electric refrigeration industry.

This new plant of the most modern construction, which is now being equipped with new machinery, will be ready for production purposes by November 1.

FRIGIDAIRE, KELVINATOR DOMINATE DAIRY SHOW

Toronto, Canada—Over ten thousand people attended the Dairy Industries' Exposition which opened on Oct. 21. Several new types of electric ice cream cabinets were placed on display for the first time. Refrigerated trucks and soda fountains attracted much attention. Exhibits by Frigidaire and Kelvinator occupied central locations and took up about one-third of the Coliseum.

New Appointments

SAYRE TAKES CHARGE OF KELVINATOR SALES

J. S. Sayre

Detroit, Mich.—Announcement was made by H. W. Burritt, vice-president of the Kelvinator Corp., at the opening session of the annual Kelvinator distributor's convention, held here October 8-9, of the promotion of J. S. Sayre to the position of sales manager in charge of domestic and commercial distribution.

Mr. Sayre is a graduate of Ohio Wesleyan University, with the degree of A.B. He earned his Master of Arts degree in Columbia University, New York, where his thesis was on the subject of "Scientific Salesmanship and Sales Management." He was for a time in the sales division of the Toledo Scale Co., Toledo, Ohio. He joined the Kelvinator organization in 1925 as sales manager of the Detroit branch. During that connection he organized the first builders' department, and departmentalized the branch into domestic, commercial, apartment and builders'. In 1926 Mr. Sayre was made manager of the Detroit branch, which position he held for one year. From July, 1927, to September, 1928, he was New England district manager, and, at the same time, manager of the Kelvinator Boston branch. He was then called to the Kelvinator executive group in the position of domestic sales manager, which place he held until, on February 1, 1929, he was made assistant director of sales in charge of districts. October 1 he was appointed sales manager in charge of distribution and district operations.

MOX NAMED FRIGIDAIRE BRANCH MANAGER

Evansville, Ind.—George F. Mox, former manager of the Frigidaire sales branch in Springfield, Mass., has been engaged as manager of Frigidaire sales branch here, which succeeds the Refrigeration Products Co. This branch has dealers in twenty-three counties in Kentucky, ten counties in Indiana, and thirteen counties in Illinois.

Mr. Mox was formerly Frigidaire zone manager and several years ago was an engineer of the General Motors research laboratories.

KNOWLES ADVANCED BY UNIVERSAL COOLER

Detroit, Mich.—Effective October 1, 1929, W. H. Knowles was appointed sales manager of Universal Cooler Corp. Mr. Knowles has been in charge of western operations with headquarters at Chicago for this company during the past two years.

STEPHENS PROMOTED BY G. E. DISTRIBUTOR

Evansville, Ind.—S. R. Stephens has recently been appointed manager of a retail dealer branch of Electric Refrigeration Co. of Louisville, Ky. The new branch is located at 627 Main St., Evansville, Ind.

The Electric Refrigeration Co. is distributor for General Electric refrigerators.

HUBBS GETS ELECTROLUX FRANCHISE IN SEATTLE

Seattle, Wash.—Lewis A. Hubbs, Terminal Sales Bldg. here, has been named as Pacific Northwest distributor for the Electrolux refrigerator.

MAXWELL CO. ORGANIZED TO MAKE REFRIGERATORS

Albany, N. Y.—Maxwell Refrigerator Co., Inc., 3540 Rochambeau Ave., Bronx, New York, has been organized to manufacture refrigerators. Charles Weintraub, Morris Friedman and Lee Marantz are directors of the company.

CORLETTE TO SUPERVISE WOOD CONVERSION SALES

Cloquet, Minn.—Wood Conversion Co. announces the appointment of C. A. Corlette as manager of industrial and railroad sales. The department under Mr. Corlette's direction will handle all sales to refrigerator manufacturers, industrial concerns and railroads. The headquarters of this new department will be in Chicago, with offices at present in New York, Detroit and Washington, D. C.

H. S. BOYLE RECEIVES ELECTROLUX APPOINTMENT

New York, N. Y.—Howarth S. Boyle has recently been appointed sales promotion manager for Electrolux. He will make his headquarters at Evansville, Ind., plant of Servel, Inc.

For the past several years Mr. Boyle has been director of sales education for the Standard Gas Equipment Corp., and prior to that was sales service manager of the U. S. Rubber Co., Boston, Mass., branch.

Mr. Boyle was a member of the Second Roosevelt Expedition to South America.

EDUCATIONAL DIRECTOR

Marion R. Moore

Atlanta, Ga.—Larkin-Warren Refrigerating Corp., manufacturers of Larkin coils, announces the appointment of Marion R. Moore as head of its educational department.

For the past six or seven years, Mr. Moore has been connected with Kelvinator and Frigidaire organizations in the capacities of a salesman and educational director of service and installation.

DISTRICT MANAGER

L. James Melvin

L. James Melvin has joined the field organization of G. M. Dwelley, Inc., as district manager of the Southwest, with headquarters at Muskogee, Okla.

Mr. Melvin started in electric refrigeration as distributor for Kelvinator in Oklahoma. He later joined the Kelvinator field organization as district representative and from that position went to General Electric as district representative. He then joined Copeland Products, Inc., in a sales promotional capacity, specializing in field sales instruction work.

McLAREN HEADS UNIVERSAL COOLER SALES IN CANADA

Windsor, Ont.—G. M. Johnston, managing director and secretary of the Universal Cooler Co. of Canada, Ltd., announces the appointment of J. A. McLaren as sales manager of that company.

KELVINATOR MAN LEAVES FOR SOUTH AMERICA

Detroit, Mich.—Rex Gorham, a new representative of the Kelvinator export division, has left for South America. He will join Export Manager R. A. Lundquist at some port on the East Coast.

Europe Develops An Ice Cream Appetite

PARISIANS CATER TO AMERICAN TOURIST'S TASTE FOR SWEETS

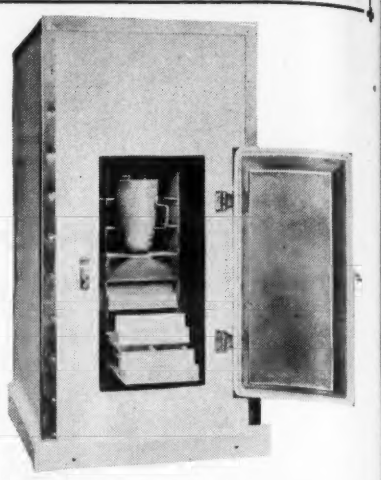
By Dorothy Dignam
European Correspondent

AMERICAN tourists romping through Europe next summer will be met with the most enterprising methods of parting them from their travelers' checks. Paris cafes and restaurants have discovered "appetite appeal" and intend to put it on a paying basis.

Frigidaire Limited recently made an interesting electrical installation at La Coupole roof garden, consisting of a large display-case fruit refrigerator. The frost-covered cooling unit is in plain view of visitors, and food compartments at each side are arranged with refreshing grapes, pineapples, melons and boxes of peaches from the French colonies. The compressor and motor are housed at the side of the display case.

La Coupole cafe is especially popular with visiting Americans on account of its situation in the Montparnasse district—the new Latin Quarter on the Left Bank. This section is the rendezvous of Young America supposed to be studying art and music, but neglecting no opportunity of "seeing life" at the same time.

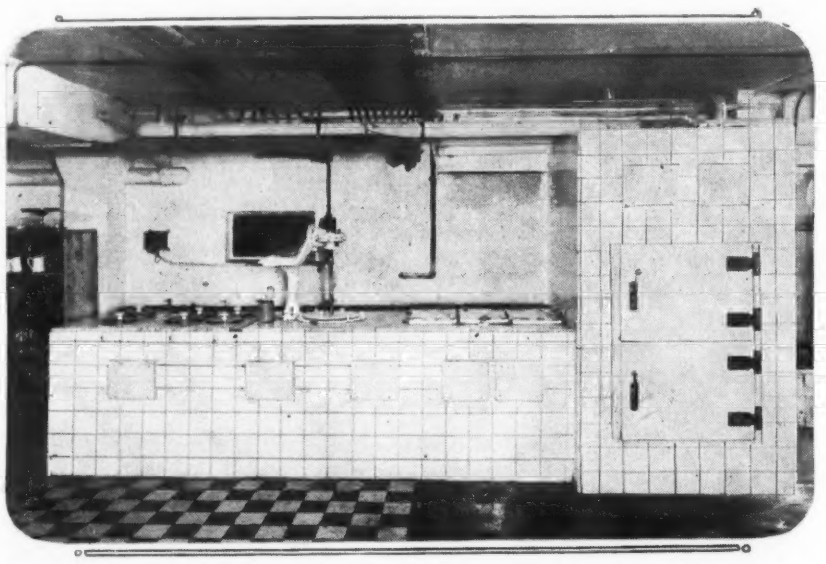
Enterprising Paris Cafes See Profits in Appeal of Electric Refrigeration



FREEZING cabinet of the type used in fine Continental hotels and on deluxe trains. The drawers produce ice cubes in quantity and in the upper section is space for several large molds of ice cream. It is the event of the meal, on such crack trains as the great Nord Express that carries London and Paris traffic straight through to Warsaw, to see the headwaiter come in with one of these huge pink and white cones of ice cream on a silver salver.

LA Couple roof garden cafe, in the Montparnasse district of Paris, has increased its attractiveness to American tourists and resident students through the installation of a Frigidaire cooled display case for fruit shipped in from the French colonies.

Refreshments Are Served to Patrons of Leipzig Theatres



SUNDAES for the Monday Matinee, at the Central Theatre, Leipzig. All first rate Continental theatres serve refreshments from their own kitchens. This efficient installation is busy on three counts. In the center, ice cream is manufactured, on the left it is stored, ready to serve, and on the right the tall cabinet takes care of a tempting array of chilled desserts and French pastry.

Frigidaire Performs Three In One Job In Berlin Cafe

HERE'S a combination few Americans have seen. It's a wine cooler with a beer draught arm adjacent and a large storage cabinet for chilled sweets below. The wine bottles are in their cooling jackets sunk into the end of the counter—you can just see the bottle tops sticking up and looking around. This entire counter was an old end-icing refrigerator, converted by Frigidaire in Berlin.

All-Electric Soda Bar Stops At London's Doors

AND "O, to be in England" where the soda bar rolls right up to your front door Here's the latest type all-electric fountain mounted on a two-ton truck, carrying two soda jerkers and a driver. The fountain has a capacity of 25 gallons of bulk ice cream and a large one-hole cabinet for bricks. A standard ½ H.P. air-cooled compressor was installed by Frigidaire and operates from a 750-watt Delco-Light plant carried by the truck.

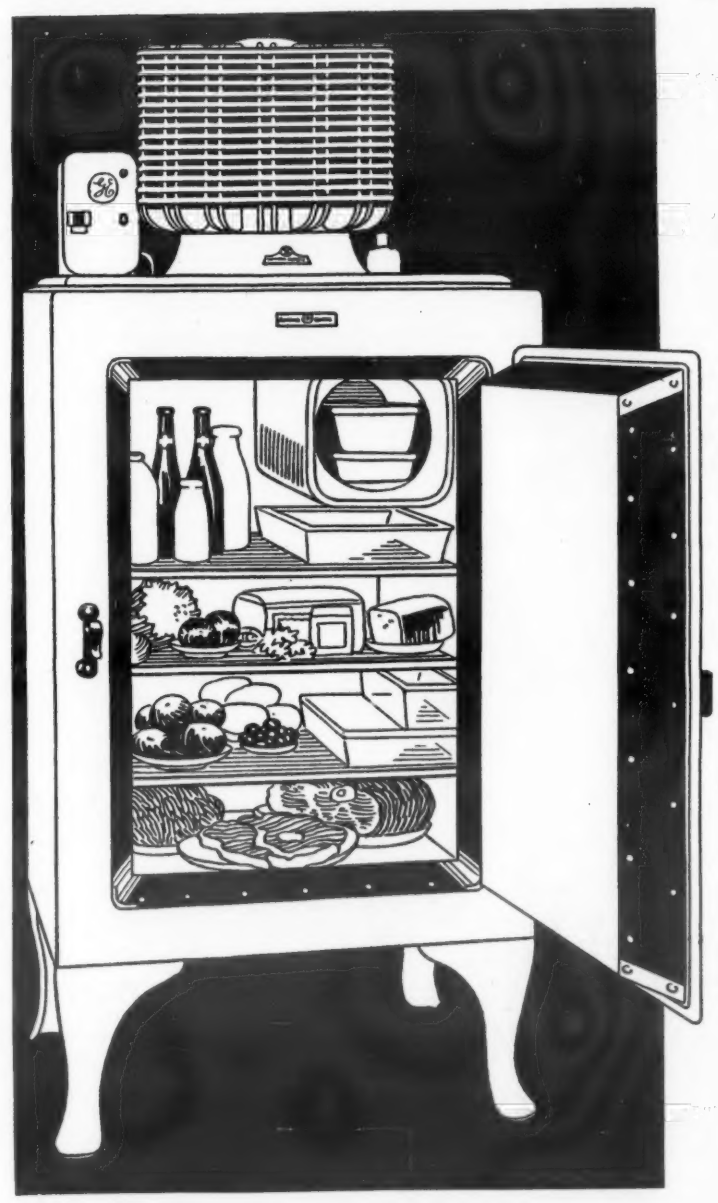
Year Round Refrigeration

—the backbone

of *Fall* and

Winter Sales

THE idea that electric refrigerators could be sold only in the summertime has been proven a fallacy. Live selling organizations put over big volume business last year at this time. But this fall the job is easier. The September nationwide Food Preservation Campaign has educated the public to the importance of ALL-YEAR ROUND REFRIGERATION in the home. All that remains is to PLAN YOUR SALES ACTIVITIES TO CASH IN ON THE PUBLIC'S DESIRE TO BUY. **And feature your monthly easy payment plan.**



"There is no let up in the General Electric Refrigerator National Advertising." It continues to back you up in creating Consumer demand

And actual investigations show that the preference for General Electric Refrigerators is more than twice as great as for any other make

OUTSTANDING ADVANTAGES TO USERS:

—an hermetically sealed, dust-proof mechanism.
—a simple freezing regulator—right on top of the cabinet—always accessible—easy to reach and easy to regulate.
—entire mechanism on top—quiet, and no oiling required.
—an all-steel warp-proof cabinet.
—mounted on legs with broom-room underneath.
—a sanitary, all-porcelain chilling chamber.
—maximum shelf and food storage space in the cabinet.
—absolutely no radio interference.
—no installation problem—hence no installation costs.
—an unqualified two-year service guarantee.

GENERAL ELECTRIC

ALL-STEEL REFRIGERATOR

ELECTRIC REFRIGERATION DEPARTMENT OF GENERAL ELECTRIC COMPANY, HANNA BUILDING, CLEVELAND, OHIO

World Markets

VOLUME OF EXPORT BUSINESS, MEASURE OF U. S. PROSPERITY

By B. H. Morash

B. H. Morash, formerly managing director of Kelvinator Ltd., London, England, has returned to the United States. He will, however, continue as a director of Kelvinator, Ltd., during the next two years. Mr. Morash served four years in Japan in charge of sales and engineering for International General Electric Co., spent two years in India as an assistant manager of W. R. Grace & Co.'s machinery and engineering business and also served two years as sales manager of General Refrigeration Co. (Lipman), Beloit, Wis.

THE volume of export business in this country represents the difference between prosperity and depression.

The customer abroad can now expect satisfactory service from factories and suppliers of merchandise, because manufacturers know the value of export business. The old attitude taken by many of the smaller factory organizations was revealed by such expressions as: "That is one of those darned export orders." Export orders were considered a nuisance.

Many potential foreign customers have been lost because their orders did not receive prompt attention and care when domestic demands required the full factory output. These customers received prompt service only when there was a surplus of goods to move and a depression existed in the home market.

The larger manufacturers, years ago, learned the value of export business and set up special organizations to handle and develop it. Such organizations must be keen to study markets and give service equal to that given in the domestic field. Contrary to many beliefs, export business is not a mystery. It is chock full of interest and romance, and only requires the same degree of study, common sense and intelligent handling as is applied to domestic business to produce satisfactory results.

Take the rapidly expanding business of electric refrigeration. The export field offers unlimited opportunities. There is a market in every overseas country. The need is there, although considerable educational effort may be necessary in some areas. In countries such as India, the great demand at present is for domestic refrigeration. In the British Isles, the commercial demand predominates. Owing to climatic conditions, the English people, in the past, have not felt it necessary to use ice refrigerators in the home. They have never liked cold drinks, including water, so the domestic demand for ice has been very small and a delivery ice service, such as we enjoy here, has never been developd in England. The introduction by Parliament of pure food laws, a few years ago, by which preservatives in food stuffs are prohibited, is gradually altering this situation and the better class of people with means are purchasing ice refrigerators and an increasing number of electric refrigerators.

The manufacturer of electric refrigeration equipment is in a fortunate position relative to export business. At the present time, to a considerable extent, his product is a seasonable one. The peak demand on the American continent and in Europe comes during our spring and summer. In the southern hemisphere, comprising Australia, New Zealand, South Africa and South America, where the seasons are opposite to ours, the peak demand will come from October to March. That situation is ideal for the manufacturer, as the valleys in the production and sales curves are smoothed out with orders from these areas, resulting in reduced labor turnover and in lower manufacturing and selling costs. A study of this condition undoubtedly would prove in many cases that lower selling prices could be offered with advantage to certain markets during the off American peak period in order to open up these areas rapidly and secure volume business.

Five years ago the demand for ice cream in the British Isles was infinitesimal. Today the demand is rapidly increasing, although it is not consumed as a foodstuff by the people; therefore, the winter sales are very light. The picture theatres and amusement places, however, are developing a considerable demand throughout the whole year. This great business has resulted in the sale of thousands of electric refrigerated ice cream cabinets, most of which have been exported from our American factories.

To develop a satisfactory volume and profitable export business requires broad vision, sympathetic consideration of special requirements abroad, the fullest support in advertising helps and the closest accuracy in attending to the customer's business. An insignificant looking initial order may develop into one of the largest and most lucrative accounts in time.

EXPORT MANAGER

C. E. Colyer

Evansville, Ind.—H. W. Foulds, vice-president of distribution, Servel Sales, Inc., announces the appointment of C. E. Colyer as export manager with headquarters at the Servel New York office, 51 E. 42nd Street.

Mr. Colyer has been with the Servel export department since March, 1926. Prior to that he was with International General Electric Company, Consolidated Steel Corporation and General Electric Company. During the war, Mr. Colyer was superintendent of shipping for American Red Cross in New York and was also with the Transportation Corps in France.

FIELD ENGINEER

G. C. Licence, special representative for the H. M. Robins Co. This picture was taken on an old fort at Rio de Janeiro, overlooking the bay.

WILL CONDUCT SERVICE SCHOOLS IN FAR EAST

Detroit, Mich.—G. C. Licence, general service representative of the H. M. Robins Co., export agents for the Copeland Products, Inc., will leave soon for India and the Far East to open up sales outlets and conduct service schools. Mr. Licence, who is now at the Copeland factory, returned only recently from South America, where he has been developing service maintenance for Copeland distributors and dealers.

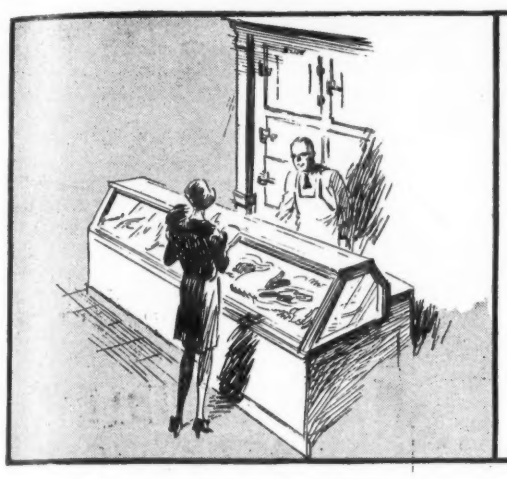
"Word received from the foreign field," according to Mr. Licence, "is to the effect that electric refrigeration is coming into demand in Asia, particularly in the larger cities of India. Of course, in the interior, where living is largely primitive, there will be no demand for some time, but with the larger cities leading, in time there will be a demand from the smaller localities.

"There are many clubs in such cities as Calcutta and Bombay, where the British influence is predominant, and where the building is more along the European and American type. Already we have shipped a large number of Copeland units to different sections of India, and the time seems now ripe to consolidate our sales efforts and provide adequate service facilities. When a dealer is established it is the usual practice to remain with him for a period of time, develop what material he has available and see that he is thoroughly equipped to service all installations made.

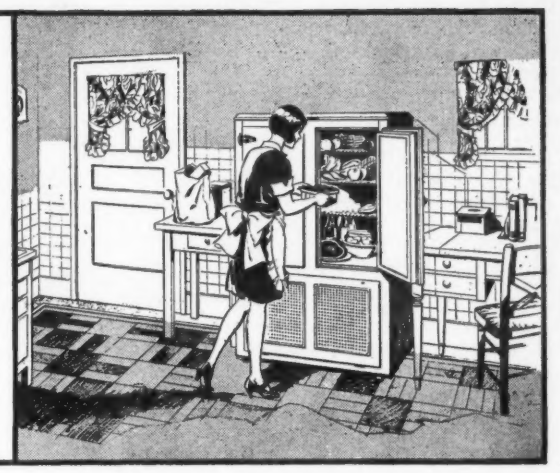
"The foreign dealer necessarily must be more self-reliant than the dealer in the home country. Here is can get duplicate parts at a day's notice, but when one is months away from his service base, he must be a well-qualified engineer and mechanic if he is to hold his own. It is for this purpose that the H. M. Robins Co. maintains special service representatives and sends them to all parts of the world.

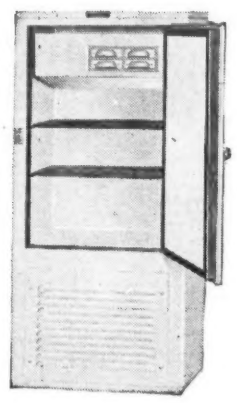
DEALERS SAY:

"The two Servel lines make every home and shop a prospect!"



Each one—commercial and domestic—is uncovering prospects for the other, and between the two a year-round business is assured to the Servel dealer





There are Four household models of the NEW SERVEL. This has 5 cubic feet of storage capacity.

NO WONDER dealers are so enthusiastic about the Servel line! It gives them a tremendous opportunity—one that any live business man is bound to make real money on.

They're making it, too! They can't help it. Just think what they have—two complete lines—domestic and commercial—that cover absolutely every refrigeration need. Servel dealers can go after every bit of business, confident that Servel will meet the prospect's requirements exactly.

Domestic models for every household

Just look at the NEW SERVEL household line. It covers the needs of families of every size. Models range from 5 to 10 cubic feet storage capacity.

And what selling features they've got! Whisper-like quietness . . . big ice-making capacity . . . steadily maintained temperature . . . surprisingly small current consumption . . . operation the user can count on all year round.

More than this, the NEW SERVEL is specially designed for women. Lots of small details have been carefully worked out to make it easier and more convenient to use. And just these little refinements, once they're pointed out, have a big appeal to the woman who has to use her refrigerator a hundred times a day.

The NEW SERVEL cabinets are beautiful, too . . . with a new 5-coat, *baked-on* finish, absolutely chip-proof. All hardware is chromium-plated. And these cabinets are wonderfully built! Heavy cork-board insulation, moisture-proofed with hydrolene; hand-fitted hardwood frames; seamless porcelain liners. In every detail the finest electric refrigerators on the market.

A big commercial opportunity

Unique in modern refrigeration is the Servel Commercial Line. It gives the dealer a wonderful chance for a real volume of business—because *it reduces commercial refrigeration to the simplest terms.* It simplifies estimating. It simplifies engineering. It simplifies installing. And, once it is installed, its performance makes every customer a booster.

Take Servel machines, for instance. They are heavily built to give years of reliable service. They are slow-speed—to minimize frictional wear. They require no thermostats. And they are unusually quiet—a big selling argument for cafeterias where the unit is under the counter.

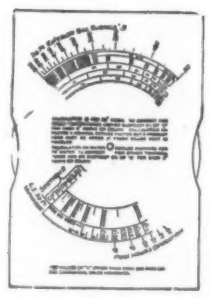
Flexible—easy to install

But the new all-copper chilling sections are what make the Servel system so flexible. Practically any installation can be built up from a stock of these sections. They come in a wide range of sizes—and they're so light that one man can erect any ordinary job. Think what that saves in erection costs!

Engineering simplified

Engineering? Why, that's been made so easy that a salesman can complete most of the preliminary work *while he's actually talking to the customer.*

The new Servel CALCULATOR makes this possible. It's a simple device that does virtually all the calculations on ordinary jobs. For special installations, of course, the Servel engineering department is always at the dealer's service.

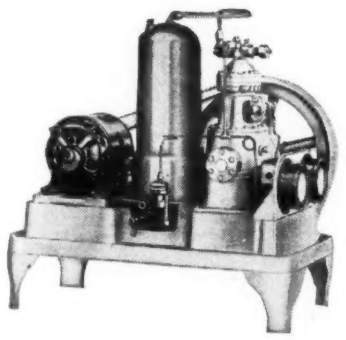


This Servel Calculator

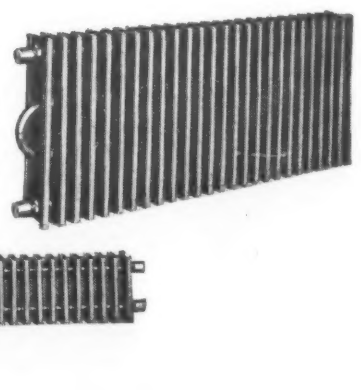
saves countless wrestling matches with figures. It just about eliminates all the work attached to the preliminary engineering on commercial jobs. And it is easy to carry . . . pocket size.

Can you wonder, then, with this big opportunity, that present Servel dealers are reaping profits they never knew the refrigeration business could produce? Can you wonder, too, that the Servel franchise is being eagerly snapped up in territories where it is offered?

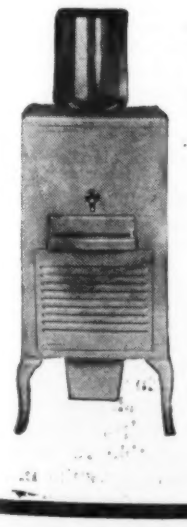
It's a proposition every progressive business man can well afford to consider carefully. Think it over. Then write us for complete information. There are some very good districts still open in our national set-up.



One of the Commercial Machines, Model 75-AW Compressor. Designed for use in soda fountains, grocery and meat refrigerators, florist boxes, display cases, multiple apartment installations, milk coolers and circulating water systems.



Two of the Ten Sizes of chilling sections used in Servel commercial installations. From these you can see how easily they can be adapted.



Water Coolers, Too! There are three that cover the field adequately. And this water cooler business is getting better all the time!

SEAL of SANITATION
SERVEL
Electric Refrigeration
WE GUARD YOUR HEALTH BY PROTECTING YOUR FOOD

This seal on a store's door or window guarantees fresh, perfectly kept food to customers.

SERVEL SALES, Inc.

EVANSVILLE, INDIANA

French Women Organize Movement for Better Homes

FRIGIDAIRE, ELECTROLUX AND KELVINATOR EXHIBIT IN PARIS

By Dorothy Dignam, European Correspondent

THE 1929 Salon des Arts Ménagers, at the Grand Palais, most important household show of the year in Paris, had a record number of exhibitors of electric refrigeration.

The whole tenure of this year's Salon was unusually high. Exhibitions were elaborate and the crowd attending was almost wholly of the better class, representing real purchasing power.

The vast middle class in Paris, immerging from the after-war economic struggle, is steadily growing in prosperity and slowly improving their mode of living. There is practically no unemployment and the stabilizing of the franc has led to greater confidence among salaried people in making purchases on time payments.

A progressive change is also noted in French women who are again agitating for the vote and are entering the sciences and professions in increasing numbers. The homemaker is awakening to the practicability of better household equipment, and La Ligue de l'Organization Ménagère—the French movement to organize housewives and improve the home—reports a steady growth in membership throughout the country.

Fully a third of the five hundred exhibitors at the Salon des Arts Ménagers displayed gas and electric appliances. Refrigerator manufacturers were well represented. Frigidaire Limited showed a dozen models, domestic and commercial, including their ice cream preserver.

Next door the Kelvinator exhibit was practically as large and quite as spectacular. The center of the space was built up in cubical form and surmounted with a huge illuminated thermometer showing the centigrade point at which the electric refrigerator maintains its steady cold.

Electrolux not only had a full display of domestic and commercial models but showed a number of their new built-in-furniture designs—kitchen cabinets with a refrigeration section. Electrolux gas models are popular in Paris because of the low gas rate in this metropolis—only a trifle over 3c a cubic metre.

In the hydro-electric districts which are rapidly being developed in the central and southern parts of France, the electric model is growing in demand. However, an unusual situation is sometimes faced in Provincial French towns where the central station "shuts down" at 11 p. m. and all electricity is automatically cut off. In such localities gas refrigeration is, of course, imperative, and Electrolux in Europe has somewhat the advantage of being equipped to install either type.

Electric refrigeration was also exploited at the Salon by the Compagnie Parisienne de Distribution d'Electricité—the electric light and power Company of Paris. This concern had a complete wing of the Grand Palais fitted out with an Electric Home, a demonstrating auditorium with electric kitchen and laundry; also exhibits of housekeeping appliances and better lighting in home, store and factory.

The Paris light company does not merchandise as yet, but is an active influence in an all-French society that seeks to develop the use of appliances, and has salesrooms in various parts of France. At the Salon they included an electric refrigerator in the kitchen of their model home, and also had another placed on the platform of the cooking school where the benefits of refrigeration were discussed from the platform.

There is not, however, as much interest in chilled foods and frozen desserts as in America, the French having very little appetite for such fare. Desserts are more likely to take the form of fruit, fresh or cooked—a pancake or fritter with powdered sugar, or a hot-baked soufflé pudding. The Paris electric company, however, allots time to "frozen delicacies" in their cooking school programs, and since these courses are attended by both homemakers and professional cooks (even the French chefs having their evening classes) this educational work cannot fail to help develop the refrigeration field.

One outstanding point in the refrigerator exhibits at the 1929 Salon was the total absence of color finishes or fancy stencils of any kind. The American-made domestic cabinets were almost wholly of the Duco-on-metal or all-porcelain construction, although a number of French manufacturers showed wood cabinets enameled. Finishes were all white, however. The French consider this quite elaborate enough.

In America the Kelvinator French-grey border was the sensation of the cabinet industry a few seasons ago, and has since proved immensely popular with our own womenfolk. But in France, neither cabinet decorations nor fancy hardware seem to make any deep impression. This may follow, however, as kitchens in France are gradually improved in appearance as well as in equipment.

Among the French-made refrigerators at the Salon, the following were the most conspicuous:

"Etelec"—Made by Etablissements Electro-Mécaniques de Strasbourg, in Alsace-Lorraine, and largely sold in the provinces. A compressor type electric machine with compressor on top of cabinet, neatly housed—not unlike the General Electric model familiar in America. High vertical type freezing unit. Domestic model of about 12 cubic foot food capacity; cabinet with metal sides and wood doors white enameled: $240.

"Frigibloc"—Made by l'Agence Commerciale du Frigibloc at Lyons, with sales office at 4 Galerie Montpensier, Paris. Sold throughout France and in the French colonies. A new ammonia type, non-automatic machine without compressor. Operates by gas, petrol burner or electric heating element. Very simple in construction. A fifteen gallon tank of water is sealed into top of cabinet; the evaporator is located in a narrow compartment to the left just below; to the right is the food chamber in which is suspended a cylinder-shaped freezing unit enclosing two ice drawers of ten-cube capacity each. The heat once turned on shuts off automatically in an hour and a low temperature is maintained for twenty-four hours. Believed to be absolutely explosion-proof, after three-year tests. The domestic size, one model only, sells complete for $150.

"Gelidor"—Made by Compagnie S. E. V. at Issy, Seine; sales office at 11-bis rue Torricelli, Paris. The full name of the manufacturing company, now abbreviated to Compagnie S. E. V., was Société Anonyme pour l'Equipement Electrique des Véhicules—well known as makers of automobile and airplane equipment. They enter the refrigerating field with an automatic compressor-type machine with motor and compressor in bottom of cabinet and cooling coil suspended in upper section of food chamber; three ice drawers of 12-cube capacity. The cabinet is of metal, enamel finished and nickel trimmed, but the price is high—$480 for domestic model of medium size.

'Refrigex"—Made by Société Générale de Matériel Frigorifique, 147 Boulevard Sérurier, Paris. Another electric machine of compressor type, operating for an hour and a half and maintaining the stored-up cold for twenty-two hours, entirely automatic. The mechanism is housed on top of the food chamber in a section of the cabinet slightly smaller than the food chamber itself. The freezing unit is a cylinder suspended in the food chamber, with one ice drawer of 16-cube capacity. (Freezing trays are unimportant in French-made machines, and reduced to the minimum in capacity. There is very little freezing of fancy desserts.) Small domestic model, in wood, white lacquered, $260; large domestic model, $300.

Kelvinator arrested the attention of many visitors with this novel display at the Salon des Arts Ménagers in the Grand Palais, Paris, France. The center of the exhibit was built up in cubical form and surmounted with a large illuminated thermometer

American and French Made Units Displayed at 1929 Salon des Arts Menagers, Paris

Both commercial and domestic models were displayed by Frigidaire, Ltd., at the Paris household show. Tall illuminated shafts resembling icicles gave the exhibit a refrigeration setting.

EXPORT MEN CARRY MESSAGE OF HEALTH TO MANY COUNTRIES

PICTURES of palm-lined tropical shores, ships plowing the southern seas, fantastic shaped paper weights from faraway Ceylon, an atmosphere of foreign lands. One almost can sniff the exotic odor of distant Java Head.

The telephone bell rings. "No, Mr. So-and-So is not in," replies a secretary. "When will he be back? Why, not for three months. He's in India, you know."

Reminds one of a Cappy Ricks setting, but its outposts are even farther flung than those of the dynamic little captain of industry created by Peter B. Kyne.

It is the office of the H. M. Robins Company, Detroit, export agents for Copeland, and engaged in preaching the doctrine of food sanitation and electric refrigeration from the antipodes almost to the Pole, from faraway Australia to the frozen north trading posts on Hudson's Bay.

There is still romance in the export business, and a morning spent with H. M. Robins, in his office overlooking Grand Circus Park, will prove it. Here sits a man who can converse as intelligently about conditions in Russia and Ecuador as he can on who's running for city council from his home ward. A trip to India or Rio is as commonplace to him as taking the midnight for Chicago is to most of us. South America one year. Europe the next. Then on a tour of India. It's empire building, this work that this company is engaged in—building up an empire of sanitation, teaching those in foreign lands how to keep their food, preventing disease and making living a little more comfortable.

"Yes, there still is romance in the export business," said Mr. Robins, smiling reflectively. "But while the romance still remains, much of the guesswork of the old days has been taken out of it. In the old days of the clipper ships exporters lost thousands of dollars many times by failing to study market conditions carefully.

"Today we carefully survey the markets before we venture. Of course, this is possible now to a greater degree than then, owing to the cable and faster shipping. Now we know in advance just what products are needed in each country before we send them. We don't load a ship on guesswork and send it out, hoping that the market will be right when it reaches its destination. We have men in the field who are thorough students of markets and trade, and these men keep us thoroughly informed of just what is needed and just how much trade these foreign marts can absorb.

"But we are constantly opening up new sources of trade. Just now electric refrigeration is pretty well established in South America, Australia, Germany and in Canada. But we are turning our attention to the Scandinavian countries and to India.

"When we first started in this business four years ago, the field was small. Today we are represented in twenty-four countries, and expect to have representation in several more before the end of the year.

"Foreign business must be developed slowly, but when once built up it is a business that maintains steady progress."

ITALIAN NOBLEMAN SEES WORTHY CAUSE IN REFRIGERATION

BARON LUIGI PARRILLI, European manager for Kelvinator, who, with his brother, Roberto, attended the Kelvinator Distributors' Convention held in Detroit, departed October 10 to return to his headquarters office at Zurich. His picture appeared on the front page of the October 9 issue of the News.

Baron Parrilli, who has done seven years' pioneering work in electric refrigeration sales overseas, is an interesting member of an old Italian family, resident in Naples, where he was born 36 years ago. Five years ago he was decorated with the Grand Order of the King of Italy. The Baron says it is the most prized of all honors he has received. While in Detroit he said:

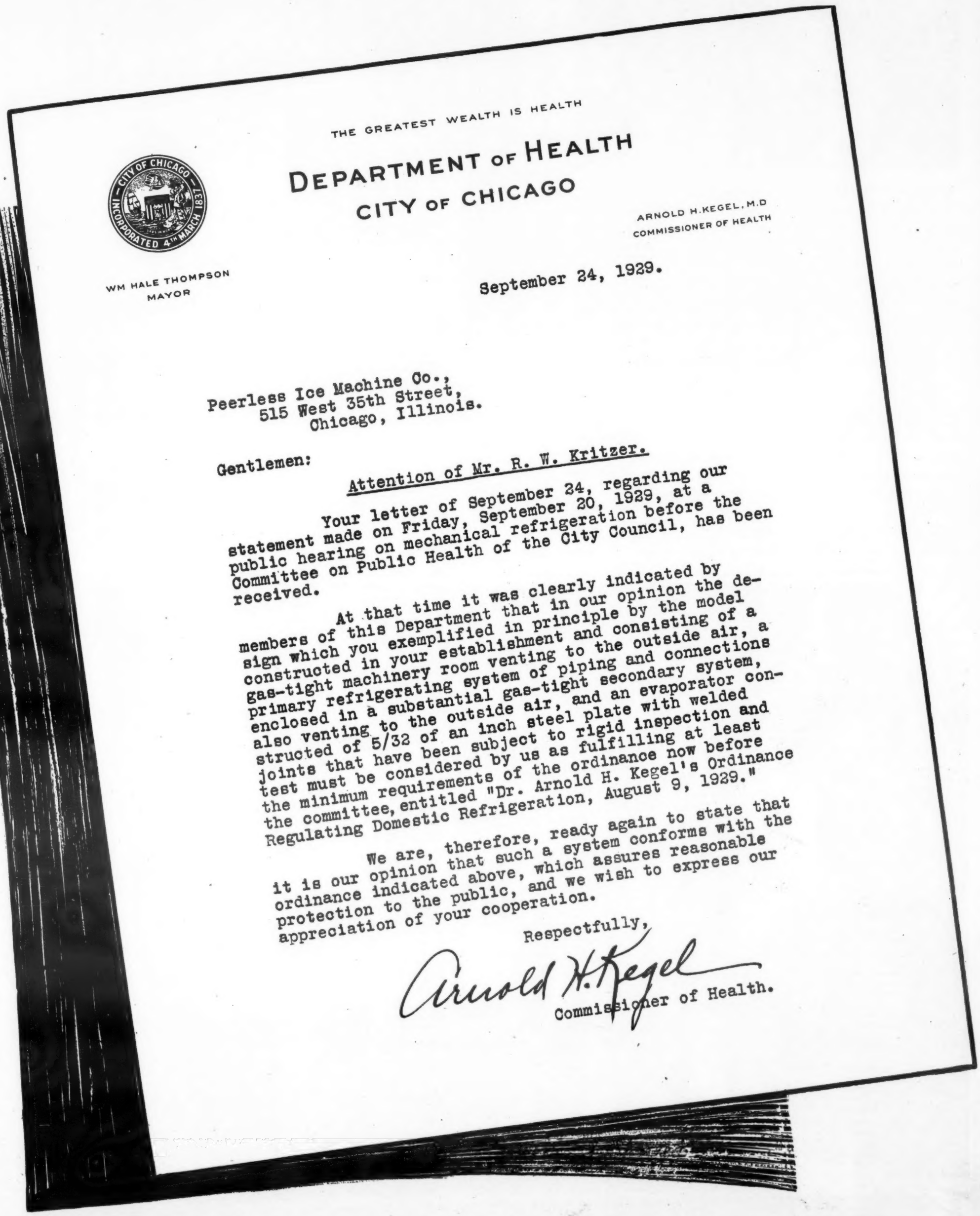
"My forbears were army men and fighters in various causes. I have been a soldier, too, but today I am, with my generation, a fighter in the cause of business and industry. I get more of a thrill out of my work for the expansion of Kelvinator business in Europe than anything else could give me. Kelvinator is creating a band of men in Europe who are working together for a great cause—electric refrigeration, to maintain the purity of perishable foods and thus protect the health of the people, and give them comfort and better living.

"During the last three of my seven years' connection with electric refrigeration abroad, I have been assisting in the creation of a business organization for Kelvinator, and I have observed many European manufacturers who, fascinated by the potential market, have gone into the electric manufacturing business. They have expended a great deal of money in these enterprises. This has seemed to me more than regrettable. We know that the leading makers of electrical refrigeration equipment in the United States have had to spend many millions in experimental pioneering work before arriving at a point of efficient manufacturing and the reward of profit. They have been justified by their available large home market and a potential world market in doing this.

"This is not true of European manufacturers trying to break into this industry, for the reason that even should they succeed in overcoming the obstacles presented by local conditions, they only hope to supply the demand of the 17 or 18 continental countries. The European manufacturers would do better to leave the electric refrigeration production to the people of the United States—to let the overseas people purchase the American-made product. We buy German toys because they make them better. They supply their own and our market. My idea is that European manufacturers will never make electric refrigeration a sufficiently paying proposition to justify the amount of money they put into it.

"H. A. Lewis, the new Kelvinator treasurer, has traveled Europe with me, and we have investigated and made our conclusions as to the European market, and we started the foundations of the Kelvinator distributorships, which we now have. It is profitable for dealers and makes us confident of results in the near future which are greater than those already attained."

New Peerless Multiple System Officially Approved by Chicago Department of Health



THE GREATEST WEALTH IS HEALTH

DEPARTMENT OF HEALTH
CITY OF CHICAGO

WM HALE THOMPSON
MAYOR

ARNOLD H. KEGEL, M.D
COMMISSIONER OF HEALTH

September 24, 1929.

Peerless Ice Machine Co.,
515 West 35th Street,
Chicago, Illinois.

Gentlemen:

Attention of Mr. R. W. Kritzer.

Your letter of September 24, regarding our statement made on Friday, September 20, 1929, at a public hearing on mechanical refrigeration before the Committee on Public Health of the City Council, has been received.

At that time it was clearly indicated by members of this Department that in our opinion the design which you exemplified in principle by the model constructed in your establishment and consisting of a gas-tight machinery room venting to the outside air, a primary refrigerating system of piping and connections enclosed in a substantial gas-tight secondary system, also venting to the outside air, and an evaporator constructed of 5/32 of an inch steel plate with welded joints that have been subject to rigid inspection and test must be considered by us as fulfilling at least the minimum requirements of the ordinance now before the committee, entitled "Dr. Arnold H. Kegel's Ordinance Regulating Domestic Refrigeration, August 9, 1929."

We are, therefore, ready again to state that it is our opinion that such a system conforms with the ordinance indicated above, which assures reasonable protection to the public, and we wish to express our appreciation of your cooperation.

Respectfully,

Arnold H. Kegel

Commissioner of Health.

Peerless Ice Machine Co., 515 West 35th St., Chicago, Ill.

American Equipment Gaining World-Wide Popularity

Columbians Cultivate Taste For Iced Drinks

THE introduction of electric refrigeration in Latin-American countries has increased the demand for soda fountain equipment. The Soderias Ritz, Cartagena, Columbia, S. A., shown here, has installed a 32-ft. soda fountain and a 32-ft. onyx back bar, manufactured by the American Soda Fountain Co., Watertown, Boston, Mass. Both the soda fountain and back bar are cooled by five Frigidaire ½ hp. compressors.

English Chain Stores are Volume Buyers

EUROPEAN Frigidaire display with a vivid painted backdrop of German poster-art inspiration. The design includes symbols of transportation by locomotion, telegraphy, television, chemistry, engineering, aviation, etc. The electric refrigerator is presented as the supreme achievement of the present age. The colors in this window are kaleidoscopic but entirely massed at the back, and the lines of the design slant in toward the bulls-eye which is, of course, the refrigerator.

Bachelors, In London Apartments, Favor Table Model Refrigerator

TABLE model Electrolux gas refrigerator in bachelors' apartment, London, England. There are no kitchenettes in buildings of this date so the purpose of the table model is to simulate a small buffet in the living-dining-sleeping room. This wood cabinet is finished to match other furniture.

FACTS

YOU SHOULD KNOW

The APOLLO

Ultra Violet Sun Lamp

For Volume Sales

The DALEY

EXERCISER

Not a Vibrator But a

RYTHMIC MOTION BODY DEVELOPER

The Cream of their Respective Industries

Get these facts clear and you'll know why merchandisers of Sun Lamps are doing a nicer, cleaner and more profitable business with the APOLLO.

1. The APOLLO is the Twin-Carbon arc type which the U. S. Bureau of Standards has pronounced to be the *nearest approach to natural sunlight.*
2. It combines both the Ultra-Violet and the Infra-Red Rays.
3. The APOLLO has a *twin-telescopic adjustable pedestal* so it may be lowered to 23 inches or raised to 52 inches.
4. Gives *greater volume* of rays because it has no screen whatever. Scientifically guarded hood of non-tilting type makes old-fashioned screen unnecessary.
5. It is *safe.* Burns 15 minutes without attention; then *shuts off automatically.*
6. It's light—*weighs only 11 lbs.* and is easily moved about with two convenient cool handles on hood.
7. Carbon holder contains all mechanical and electrical parts. It is instantly removable for carbon replacement. *No reaching into hood.*
8. The APOLLO is *most economical.* Costs only $59.50 retail and consumes only about a 4c current cost per treatment.
9. Only 2 moving parts. *Fully GUARANTEED* and fully covered with patents on all important features.

Write for our sales plan and discounts while the facts are fresh in your mind and territory is still open. APOLLO means quicker profits and no regrets.

Everybody in the electrical appliance industry who has merchandised the DALEY EXERCISER knows how high it ranks in PATENTED mechanical features. The DALEY has stood every conceivable test and every conceivable comparison and won hands down in every case without exception.

The DALEY is not an ordinary vibrator. It is not designed to have you kid people into thinking that it shakes off 10 or 15 lbs. in a few days with the ripping motion of a buzz saw. It isn't that kind of machine and does not do that.

The DALEY is a rhythmic motion body developer.

Get that statement above and get it clearly because that's the all important thing about the DALEY that makes it so unique in the field. There are just two kinds of exercisers. First, there are those geared to shake at a high rate of speed and wreck the body cells to pieces. Then, there is the DALEY with its smooth rhythmic motion that really develops the body and serves as a health preservative. The DALEY EXERCISER is as far ahead of ordinary vibrators as modern electrical refrigeration is ahead of the old-fashioned ice box.

Write or wire today for sales plan and discounts. You still have time to cash in on this year's Christmas business by acting now.

The Perfect Winter Fill-in For Refrigeration Dealers

These two outstanding health appliances, the Apollo Sun Lamp and the Daley Exerciser serve as the PERFECT WINTER FILL-IN FOR REFRIGERATION DEALERS. They keep your men busy, happy and making money. They increase the traffic into your display rooms. They enable you to take the full twelve month advantage of your year's overhead. And they save you the trouble of rebuilding your sales force every Spring.

Every district manager on our sales force is a man of long refrigeration experience and able to talk with you about a constructive merchandising program. Our selling plan is keyed to the needs of electrical refrigeration dealers. If you want a real merchandising set-up that will enable you to *keep* your profits, write or wire for our sales plan immediately.

G. M. DWELLEY, INCORPORATED

Curtis Building **FLEXO TRAY** **Detroit, Michigan**

GERMAN HAUSFRAU APPRECIATES VALUE OF REFRIGERATION

By Dorothy Dignam
European Correspondent

IF a German market suggests to you only a picturesque group of umbrella-covered stalls in the village square, with a Gothic town hall and carved clock looking down on the scene, this spic and span food department in the Tietz Department store, Munich, may be a mild surprise—and a lesson in German progress.

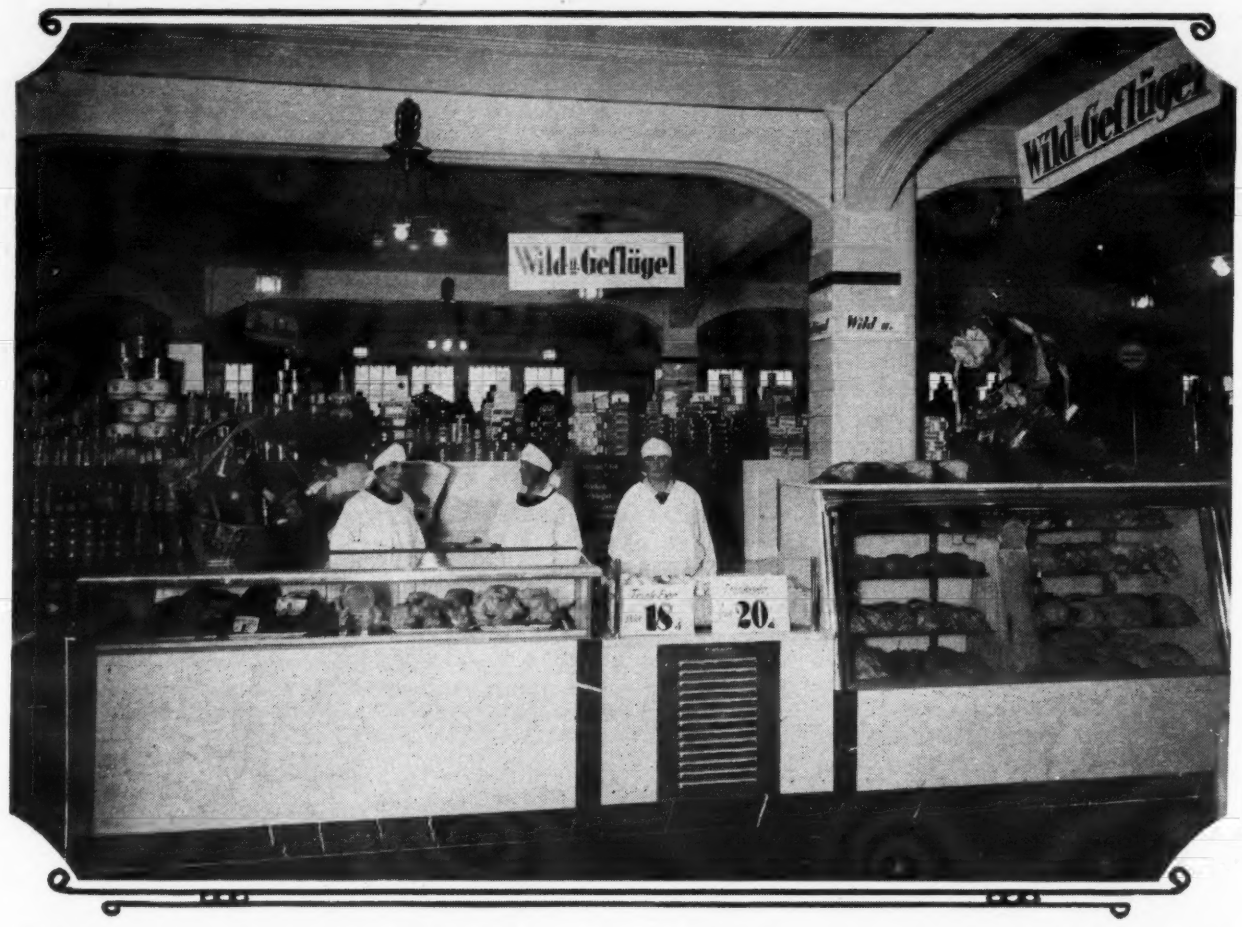
Here we have the dressed game and fowl counter consisting of two sections of refrigerated display case, and a center section housing the compressor—the whole done up in two-tone Italian marble.

The cases are chilled by vertical fin coils regulated to 45 degrees. A display case of this sort is an educational object to every woman who shops in the department, especially since the German hausfrau is already acquainted with the necessity for food preservation by cold.

Germany, in contrast to the rest of Europe, has been and still is an ice-using country. And this has opened up refrigerator replacement opportunities in both the gas and electric fields.

A strong selling point on mechanical refrigeration in Germany has been the fact that food is so unusually high priced in the cities, since the war, that no crumb of it can be wasted. Germany does a much larger business in straight domestic installations than her Swiss or French neighbors. The scale of living in Berlin, today, is comparable to that in Detroit or Chicago.

Cleanliness, Orderly Arrangement and Modern Refrigeration Appeal to Munich Citizens



Refrigerated Display Cases in Food Department of Tietz Department Store, Munich, Germany.

25 INSTALLATIONS IN PORTUGUESE EAST AFRICA

Mechanical refrigerators were not introduced into Portuguese East Africa until recently, when some twenty-five were installed in private homes, hospitals, restaurants, and hotels in Lourenco Marques, says a U. S. Bureau of Commerce report. There are several American products on the market, and two or three other makes. The principal competition at present, it is stated, comes from a British absorption type of refrigerator, which costs about $400, c.i.f. Lourenco Marques. The local power station, which has recently inaugurated a special rate for electric refrigeration power, will doubtless stimulate sales. The present market is small and highly competitive, and opportunity for increased sales depends on the installation of adequate power plants in other towns. —*Cold Storage and Produce Review* (London, England).

FLEXOTRAY SOLVES WATER PROBLEM IN CHINA

In Peiping (Pekin) the city water supply is so contaminated as to make it very unsafe for use. This presents electric refrigeration users there with a problem in that they dare not contaminate their ice cubes made from bottled water with city water in order to remove them from the metal grids.

The problem is being solved for C. R. Bennett, manager of the National City Bank of New York, at Peiping, through the use of Flexotray, as, of course, no water is required for the removal of the cubes from the tray.

ELECTRIC REFRIGERATION NEEDED BY SMALL DAIRY FARMER OF PORTO RICO

Retail milk business is carried on in Porto Rico in a manner entirely different from that in the United States. Many small milk stations are located on the streets, people come to these stations with tin cups, pitchers, bottles and fruit jars to buy their milk and take it home in the specified containers.

Most dairy farms in Porto Rico are of comparatively small size, each farm owner milks from 25 to 100 cows, the quantity of milk obtained naturally requires small amounts of refrigeration.

Milk arriving from these farms at the retail stores at 3:00 p. m. and 3:00 a. m. must be kept until 8:00 a. m., at which time most customers arrive to make their purchases. Thus the dealers who sell from 100 to 200 quarts of milk daily are also an open market for electric refrigeration.

Some of these dealers have installed electric units, others are still using the old boxes. For this latter group, the ice man comes along, leaves a 100 or so pounds of ice, which is cracked up and put in the water surrounding the box containing milk cans. This method is both expensive and uncertain because the old wooden boxes use sawdust for insulation and necessitate cooling water, box and milk, a process that soon puts the quietus to large quantities of ice and permits much spoilage of milk.

Porto Rico, with its warm, humid climate, is consequently turning to electric refrigeration in order to keep its milk supply sweet. One large milk distributor in San Juan, who owns several retail shops and a moderately sized dairy, has equipped his farm and shops with 14 Kelvinator units. Kelvinator has installed about 80 units on the Island.

HAVANA DISTRIBUTOR VISITS KELVINATOR PLANT

Miguel R. Arrelano

Detroit, Mich.—Miguel R. Arrelano, Kelvinator distributor at Havana, Cuba, came here for a business conference with R. A. Lundquist, manager of the Kelvinator export division, before he recently sailed for South America.

GODQUIN TO VISIT DEALERS IN WEST INDIES

Detroit, Mich.—M. P. Godquin, Kelvinator over-seas field engineer, who has been at the factory for several weeks, has departed for a tour of the West Indies.

They See Profits in Europe

Roberto Parrilli, European Service Manager; H. A. Lewis, Treasurer; G. V. Egan, Assistant Treasurer; and Baron Luigi Parrilli, European Manager, all of Kelvinator Corp., in front of the Little Theatre, during the recent Kelvinator Convention.

DAYTON FRIGIDAIRE DISTRIBUTOR SHOWS 50% GAIN OVER 1928

Dayton, Ohio.—One hundred and fifty Frigidaire dealers and salesmen from eastern Indiana and western Ohio cities comprising the H. W. Prior distributorship district, attended a convention held here October 9. Discussions of selling and marketing were the chief features of the meeting.

Frigidaire business throughout the Dayton district has shown a marked increase in recent months over the corresponding period of last year, and economic conditions throughout this section, Mr. Prior told the field representatives in the opening session, were showing continued improvement.

"That the last quarter of this year will show remarkable gains," Mr. Prior said, "is indicated by the fact that so far in October we are showing a 50 per cent increase over the same period of last year. In the last four months—June, July, August and September—the Dayton distributorship district showed a 36 per cent increase in business over a like period in 1928.

"Business conditions generally in this section are good and the period from now until the beginning of 1930 should be one of marked business progress."

Presentation of honor pins was made to outstanding salesmen, and short talks by Mr. Prior, G. L. Stallings, assistant manager for the Dayton distributor; and F. H. Strait, service manager, were features of the opening convention session.

A. G. Letherby, educational director, P. J. Barnaby, W. S. Neef, A. D. Farrell, O. C. Endress, M. A. Spayd and M. A. Cosner were among the speakers at the closing session. An inspection of the Dayton Frigidaire commercial display and the banquet brought the sales meet to a close.

NORTH AMERICAN POWER GROUP SOLD 4,200 UNITS DURING FIRST 9 MONTHS

Chicago, Ill.—Sales of merchandise throughout the North American Light & Power Company properties for the year up to September 7th amounted to $3,588,237 gross. This is $700,000 more than the gross sales for the same period of 1928. If the groups maintain the same advantage during the ensuing months, the quota of $5,000,000 will comfortably be met.

Special attention all over the properties this year has been given to electric refrigerators. Sales to date number over 4,200 units. Sales of other appliances have not fallen off, however, as evidenced by the following: 5,000 washers, 3,900 vacuum cleaners, 410 ironing machines, 3,700 gas ranges, 700 house heating units, and other appliances in proportion.

Preparations are being made by all groups for hard selling effort during the balance of 1929, and every indication points to a highly successful record for the year.

PORTLAND G. E. MEN HEAR TALK ON 50° CAMPAIGN

Portland, Ore.—During a General Electric "Open Winter" sales meeting, held Oct. 8, under the auspices of the Arch Electric Co., A. C. McMicken, sales manager of Portland Electric Power Co., gave an outline of the work accomplished by National Food Preservation Association. He also told of the increased amount of literature distributed by power companies in different sections of the country and advised his audience to capitalize on it by increasing sales.

F. M. Corliss, commercial engineer of General Electric, spoke on "A Broad Highway for Business." H. T. Gauss, apartment house refrigerator specialist with Arch Electric, presented the subject, "A Suite Proposition." George Rooker described window displays. Lotus Wahlers, as a housewife, and Harry Gauss, as a so-called salesman, enacted the skit, "Such Crust." Earl Jaensch spoke on "Opening the Family Purse Strings." O. E. Crites was chairman of the several meetings.

PACIFIC UTILITY CO. SELLS 773 G. E. UNITS

Portland, Ore.—From April 1 to August 31, the Pacific Power & Light Co. sold 773 General Electric refrigerators. During the month of August it sold 125 units.

HILLTREE CORP. TO MAKE REFRIGERATION DEVICES

Albany, N. Y.—Hilltree Machine Corp., 41 E. 42nd St., New York City, has organized to manufacture refrigeration devices. Samuel A. Potter, Herbert M. Hill and Thomas H. Cannon are directors.

Public Utilities Men, Architects and Builders Join in General Electric Dinner Meeting, Philadelphia

Philadelphia, Pa.—A large "get-together," involving all of the electric company sales organizations in the vicinity of Philadelphia, as well as the General Electric refrigerator distributor and dealer organization, was staged by Judson C. Burns, General Electric distributor, Sept. 25, in the ballroom of the Penn Athletic Club, 18th and Locust Sts.

Sales departments of Philadelphia Electric Co., Philadelphia Suburban-Counties Gas & Electric Co., Delaware County Electric Co., Delaware Power & Light Co., and part of the Pennsylvania Power & Light Company's sales organization gathered at the meeting. Representative apartment house owners and architects were also present as guests of the General Electric distributor.

Throughout the afternoon the guests were entertained with a series of talking movies that presented chief executives of General Electric Co. Educational sales talks were given and a well-acted skit, "How Not to Sell," closed the afternoon session.

To begin the evening session, Mr. Burns, as toastmaster, presented a novelty when he introduced the guests by groups, each group wearing a distinctive colored paper hat and rising in a body as a greeting to P. B. Zimmerman, general sales manager of the Refrigerator Division of General Electric Co.

Later in the evening prizes were awarded to the winning dealers and salesmen of a recent sales contest.

ELECTRIC REFRIGERATION NEWS

The Business Newspaper of the Refrigeration Industry

PUBLISHED EVERY TWO WEEKS BY

BUSINESS NEWS PUBLISHING CO.

550 Maccabees Building, Woodward Avenue and Putnam Street
Detroit, Michigan. Telephones: Columbia 4243-4244

Subscription Rates:
United States and Possessions: $2.00 per year; three years for $5.00
All Other Countries: $2.25 per year; two years for $4.00

Advertising Rates on Request

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VOL. 4, No. 4, Serial No. 80 October 23, 1929

Mass Production

REPRESENTATIVES of electric refrigerator manufacturers, returning from trips abroad, report that they encounter Electric Refrigeration News in every important distributing center of the world. They say, furthermore, that the presence of the paper creates a situation which must be reckoned with in all negotiations with prospective distributors of American-made equipment. While they are outspoken in their expressions of appreciation of the educational service being rendered, they also complain that the widespread dissemination of information by the News has, in a number of instances, apparently made their selling problem more difficult.

The specific complaint of the globe-trotting emissaries is that the prospective buyer in foreign lands is only too well informed regarding the latest developments in refrigeration long before the traveler has an opportunity to carry the news to him. With so many new styles and applications being introduced, the salesman finds a resistance to the older line which he is prepared to sell in the overseas market. The buyer demands the latest designs which have been announced through the columns of the News.

This situation suggests that it may be appropriate, and helpful to our readers in other countries, to voice a word of caution on the subject of new designs. In general, we would advise the long distance buyer to look with greater favor upon "last year's model" than one which has just been put on the market. Paradoxical as it may seem, there are good reasons for taking this viewpoint.

Those who are familiar with mass production methods understand that faults frequently develop in the first run of a new product. The defects are not necessarily caused by errors in design but are due to the fact that the men and machines are not yet geared up to the job. During this period the reliable manufacturer expects to take full responsibility for any imperfections which appear, and he wisely keeps his distribution within a narrow radius where proper service may be given.

The reputation of large manufacturers for taking care of their customers in this way is what gives the American public sufficient confidence to buy new things as quickly as they appear on the market. Reputable companies jealously guard this reputation in order to insure a ready sale for their new products.

This will explain the hesitancy of the reliable manufacturer to offer a new line to the export trade. Not until the equipment has gone through a successful season in this country is he willing to take a chance on letting it go so far from home. Instead of indicating a lack of proper interest in the foreign field, it reveals the soundness of the manufacturer's business policy.

Precision manufacturing on a large scale, or mass production as it is usually called, is peculiarly a development of American industry. Obviously, the size of the country, offering a market of 125 million people, is a vital element in the success of the method. But size alone is not enough. Transportation, cheap and fast, to all parts of the area is equally necessary. Large scale advertising, or mass selling, goes hand in hand with mass production, and this is made possible by publications having millions of circulation. Electric power must be readily available in large quantities at a low price. Versatile machine tools are also a vital necessity. Equally important are the developments in the field of chemistry and metallurgy.

So on down the line, one finds that an almost unlimited number of preliminary steps have set the stage for mass production as it is known today. Certain outstanding leaders of American industry saw its possibilities and succeeded in correlating all of the multitude of forces necessary to achieve the present results. Each one gave dramatic emphasis to some new application of the idea. Henry Ford stands preeminent among these leaders by virtue of his success in applying it to so intricate and complicated mechanism as a complete automobile.

The whole system demands preparations of an enormous character—a large investment in machinery, tools, materials and talent. In the field of electric refrigeration, American manufacturers have made the necessary investment and have a local market large enough to support it. Yet they need the world market to permit the fullest development of their productive facilities. On the other hand, it will only be possible, by means of mass production and a tremendous market, to secure the economies necessary to make the product sufficiently low in price that the benefits of refrigeration may be spread throughout the world.

Exhibit at National Dairy Exposition

KELVINATOR display at National Dairy Exposition, St. Louis, Mo., Oct. 12-19. Eight models, including three fountains equipped with bottle, bubbler and faucet, two Kelvinator equipped Esco cabinets, two household refrigerators and several compressors, hooked up with cooling coils, were shown in this exhibit.

FIELD OF COOPERATION IN DEVELOPMENT OF ELECTRIC REFRIGERATION

An address by F. M. Cockrell given at the summer meeting of the American Society of Refrigerating Engineers, State College, Pa. Reprinted from the September issue of **Refrigerating Engineering**, the official organ of the Society.

THINKING in terms of competition, the average business man seems first to take for granted that certain things are perfectly obvious. He assumes that it is the natural and proper thing to try to beat the other fellow.

When we think of college athletics we all agree that the proper thing to do is produce a winning team and beat the competitor. In sport we learn to play under certain rules. So it is that when we talk about competition in business, we have a tendency to think of it in certain ways designed to help us beat the competitor. The business man seems to look on co-operation in one of two ways—as a sentimental old sort of weakness, unworthy of regular business men; or a matter of price-fixing, or the getting together of two or three business men to put somebody else out of business.

The fact of the matter is, there are a great many uses of co-operation in business which involve no letting down of the normal competitive effort, which involve giving up nothing of our own interest, but rather a form of co-operation which represents very enlightened selfishness.

The refrigeration business has necessarily become related to the electrical industry, with the advent of what has come to be known as electric refrigeration, because any device which is operated by electricity is necessarily electrical, whether we want it to be or not.

Relation to Power Industry

Those who have followed the electric industry are aware of the fact that it is a co-operating industry, more so, perhaps, than any other. That is not because the electric industry is necessarily more enlightened or has any better spirit than other industries, but rather because it is forced to co-operate whether it wants to or not, for two reasons.

First, electrical current has to be made the instant it is sold, presenting a very unusual problem of production. The industry knows nothing of storage and 30-day delivery. The fact that you may walk over to the switch, press the button, and by that process order 60, 100, or 500 watts of electricity which the company must at that moment produce and deliver, is responsible for the very complicated system of transmission lines and production equipment which constitute the public service company of today. It shows the reason why public utilities must be operated by engineers.

Another fact with which the electric industry must contend is that every electric device must be hooked to the wire. In that little cord going from the device to the outlet in the wall, we have the reason why the sales manager becomes so entangled in his thinking about market development. Whereas, most products are self-sufficient, like a typewriter, which the operator may bring into the room, sit down, and use, every electric device must be hooked to a source of supply.

The manufacturer of an electric device cannot be independent. The electrical manufacturers cannot sell the device unless the houses are wired, and the electric contractor cannot wire the house unless there is power to be supplied.

There are many manufacturers coming into the field, who find it difficult to understand the psychology of the public utility. A central station manager is a combination of an engineer, a banker, and a politician. If you think of those three viewpoints, you will perhaps understand a little bit better his way of reasoning. He must be an engineer to operate the complicated system of an electric light plant. He must be a banker to produce the capital; he has to operate on borrowed money. He must be a politician because he has to obtain franchises and get along with the public.

So, the electric industry has come to be known as a co-operating industry.

Co-operation of Engineers

In the refrigerating field I should like to call attention to several opportunities for co-operation. I feel that it is worth while to present this to engineers. They are, to a considerable extent, naturally co-operators, and if they understand the possibilities for co-operation in the refrigeration industry, that thought may be carried back to the executives, who seem to have some difficulty in getting a clear understanding of its possibilities.

In the first place, there is an opportunity for co-operation in collecting industry statistics. Only within the last month arrangements have been made to collect statistics on production and sales of mechanical refrigerating units. Through the National Electrical Manufacturers' Association, provision is being made for maintaining the confidence of the individual manufacturers who report their sales and for issuing only total figures on the production or sales of the industry for a given period.

I think it should be quite evident that when these figures become available regularly, it will be a tremendous benefit and will be an insurance against dislocating the industry because of over-production. The manufacturer, knowing what the total sales are for a given period, can make comparison with his own sales and determine whether he is getting his proper share of business.

One interesting occurrence illustrates not only the value of statistics, but also the possibilities of co-operation in studying the fluctuations in sales due to the changes in temperature. Stephen Bennis is responsible for the presentation of a chart which shows the fluctuations of temperature in New York from the first of 1925 to the early part of this year.

I checked this with him and we found that through January, February and March the curve of cumulative temperature was following almost exactly the temperatures which existed in 1925. That year we had a hot summer and during the year the excess temperature continued to accumulate. In 1926 the temperatures were continually subnormal and the cumulative deficiency kept increasing throughout the year. In 1927 and 1928 the temperatures were above normal for the first few months, and then changed and were subnormal for a period, so that by the final determination of cumulative curve the year was about an average one.

I studied these curves and thought I saw in them some relation to the sales of electric refrigerators. In 1925 there was a period of promotion, when there was great enthusiasm for the possibilities of this new device. Much capital was raised and great plans were made for the following year. The year 1926 was a great disappointment to the industry. Many of the companies were bankrupt. There were all kinds of troubles and difficulties. 1926 was a cold year. More electric refrigerators were sold in 1926 than in the previous ten years put together, but the result was none the less disappointing to the industry. We find here a possible explanation of some of the difficulties of the industry during that time.

By the curve for the early months of 1929 it looked as though we were in for another hot summer. This was justified by the reports from manufacturers that business was very good. All reports indicated that the industry was doing a tremendous business and the production plans were being increased almost daily.

On April 12, according to the chart, the curve broke, the temperature dropping off very definitely. The temperature broke practically all over the country, and during the balance of April and all through May it was below normal.

Recently I talked with a manufacturer who found something strange had happened to their sales along about this time. They had been doing a tremendous business, when suddenly orders stopped.

The sales manager of another manufacturing company wanted to know if I would tell him confidentially how business was with the other companies. He stated that about the middle of April the sales prediction curve broke. I showed him the chart in question, and he said, "That makes me feel a lot better. I was afraid something had happened to our sales organization."

Research, Food Preservation

The next thing I should like to speak on is co-operation in research. A question has been asked this morning on what study has been made of health and its relation to refrigeration. Many of you know that through a new committee, known as the Food Preservation Council, a campaign concentrated in September of this year, will try to put over the idea that 50° F. is the danger line for food preservation. That is only a start in the direction of educating the public to a better understanding of the

(Concluded on Page 19, Column 5)

Lobbying vs. Research

THERE has been a great deal of talk recently about "powerards, codes, and even ordinances ful lobbies" through which standare affected. All this is, of course, a little over the heads of those of us who have devoted our entire energy to the development of safer and better equipment.

The recent suggestion that the amount of money spent in lobbying would, if spent on research, have gone farther toward the progress of the industry, is to our notion the most constructive comment yet advanced.—Kenneth Beldin, American Ice Machine Co.

G. E. Makes First Apartment Installation in Australia

Nine refrigerators comprised the first Australian General Electric apartment house installation. The Australian General Electric Co., Sydney, closed the order for this installation.

Making It Easier For The Customer To Buy

BETWEEN the electric refrigerator dealer and the consumer there is a wide space that either is a void or is spanned by some kind of a conductor which will carry the "electric current" of selling effort from the dealer to the prospect. Some conductors are more resistant than others. The problem, then, is to lower the resistance in the conductor.

The dealer is a positive element; the prospect is a negative element. Generally the "current" flows from the positive to the negative side.

A void will not conduct the "current" though it is possible sometimes for sparks to jump from one terminal to another—provided they are not too far apart.

"How do you lower the resistance in the connection between the dealer and the consumer?" was the question put to William R. Tripp, retail sales manager of the electric refrigeration department of the B. K. Sweeney Electric Company, Denver.

"The best conductor of the sales message and the selling effort," he explained, " is the line of HEALTH. We are not selling an ice box. We are selling a system of food preservation. More people are interested in their health and the health of their families than anything else. Hence the health appeal is the strongest appeal we can make. There is no doubt that an electric refrigerator is more healthy than an ice box, and it does not take a super-salesman to prove it to a prospect.

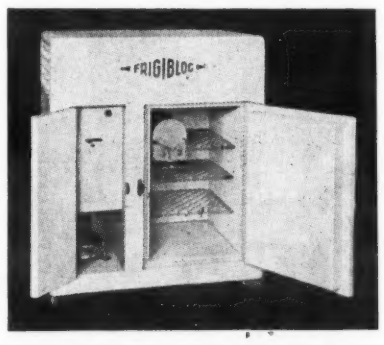
"The next least resistant conductor of the sales talk and selling argument is the line concerning the making of desserts. This appeals to the housewife's cookery pride.

"The third line is that of the sparking ice cubes as an appeal to the men folks. Last, and the most resistant line, is that of ECONOMY. I say this not because it is possible to prove that electric refrigeration is more economical than ice, but because it usually arouses a certain amount of resistance from the housewife. If you tell her she will save on food products through the prevention of spoilage, she is up on her ear immediately and retorts with the statement that she never has to throw out any foods. It is a reflection on her housekeeping ability. If you present the proposition from the standpoint of the saving in the refrigerant, you can prove your point, but, for the average family, it is a point hard to make convincing, inasmuch as some member of the family will pipe up with the statement that they only buy ice a few months out of the year.

"Now it is not fair to state that any of these lines is the least resistant in all cases. There are instances when one line is best and will carry home the message and arouse the buying interest and instinct much quicker than the others. It all depends upon the nature of the prospect.

"If the prospect is using large quantities of ice, certainly it is easy to use the economy line as the best conductor of the sales argument. If the prospect entertains frequently, the dessert angle will be the most apealing. To most of the men folks, the sparking ice cubes appeal, for they look wonderful in glasses of cold drinks. However, I still think that the health line is one of the best to start out with and to use until you determine something definite about the customer's station in life, his entertaining proclivities and his buying habits."

THE FRIGIBLOC



A NEW type of cabinet design shown at the recent Salon of Household Arts, Paris. A fifteen-gallon water tank is housed in the top of the cabinet, the mechanism is consolidated in the left-hand compartment and the cylinder-type cooling unit is suspended in the food chamber. The photo shows a petrol burner in operation, but gas or an electric unit may be employed. It is non-automatic but sells complete at the popular price of $150.

GEORGIA POWER SALES IN TWO CAMPAIGNS TOTAL $1,409,642

Atlanta, Ga.—Georgia Power Co. for the second time this year smashed its quota in a refrigeration drive. In the fall campaign, which opened on September 3 and closed on October 5, sales totaling $361,603, or 111.3 per cent of the quota, were made during the twenty-nine actual selling days.

Sales for the Atlanta stores amounted to $150,087, or 100.1 per cent of their quota. The outside districts turned in orders totaling $211,516. In the two campaigns conducted by the Georgia utility this year the refrigeration sales aggregate $1,409,642. During the 52-day spring drive the sales reached the $1,048,039 mark.

TORONTO TECHNICAL SCHOOL GETS ELECTROLUX UNIT

Toronto, Ont.—An Electrolux model EL-7 has just been installed in the new dietitian's kitchen of the Central Technical School. The installation was made by the Consumers' Gas Company, Electrolux distributors in Toronto.

AMERICAN REFRIGERANT HAS BIG EXPORT DEMAND

Virginia Smelting Co., Boston, Mass., has made substantial shipments of its product, extra dry SO_2, to Australia and the Far East.

This company has established foreign branches, as well as U. S. seaport branches, to facilitate the handling of foreign orders. The quality of European sulphur dioxide, as yet, has not reached the grade of the American product.

Branches in the United States include: Carl F. Miller Co., Seattle, Wash.; Braun Knecht Heiman Co., San Francisco, Calif.; and Braun Corp., Los Angeles, Calif. Shipments are also made from the company's manufacturing plants at West Norfolk, Va., and New York, N. Y.

The following branches are located in the foreign field: Stein Bros., Ltd., London, Eng.; Thos. Hall & Son, Ltd., Rotherham, Eng.; and Atlas Co., Copenhagen, Denmark.

IF CUSTOMER WON'T COME TO COOLER, TAKE IT TO THE CUSTOMER

Milwaukee, Wis.—William Schladitz, commercial manager, and Stanley Sorensen, bottle cooler salesman, E. H. Schaefer Corp., General Electric distributor, are using a selling idea that has proved effective.

Instead of bringing the customer to the bottle cooler, they take the cooler to the customer, from factory to factory and from office building to office building, in the rumble seat of a roadster. The cooler is placed upright, between General Electric Schaefer signs, on the rear and top of the car.

Because business men do not usually have time to visit display rooms, see the machine and examine it while its advantages are being explained, the selling idea of Mr. Schladitz and Mr. Sorensen is a big inducement toward the purchase of a bottle cooler. These two salesmen received five orders the first day they tried out their scheme.

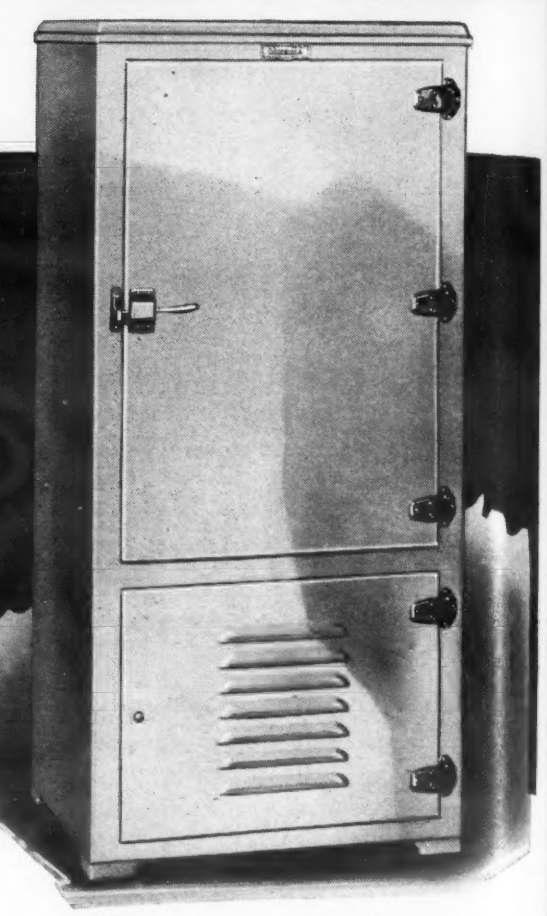
ABSOPURE

View of new Absopure Baby Grand all-porcelain model—cabinet by Seeger. This superior model, along with the $150 Baby Grand shown to the right, offer the world's best value in quality and performance.

List price.....$200.00

Beautiful New Absopure Baby Grand—*all steel, white satin lacquer exterior—porcelain interior.* Like a Swiss watch, this unusual value is all there and will command a large sale. Storage capacity, 4.3 cubic feet.

List price
$150.00



New Absopure American Beauty—all steel, white satin lacquer exterior—porcelain interior. This model is larger than the Baby Grand, having 5.4 cubic feet storage capacity., There is a ready sale for this model. Quality and capacity considered, the price is unusually low.

List price.....$215.00

THE NEW IMPROVED LINE~ AND NEW LOW PRICES~ ADD TO ATTRACTIVE VALUE OF ABSOPURE FRANCHISE.

Unusual quality, surprisingly low prices and completeness of this well-known line, make the Absopure Franchise more desirable than ever.

Present Absopure quality dates back much farther than the electric refrigerator. The history of Absopure is the history of refrigeration from the old-fashioned ice box up to the beautiful super-efficient Absopure Electric Refrigerators now available.

These machines have been painstakingly developed by trained refrigeration engineers who understand the problems to be solved. The result of their efforts is an exceptionally satisfactory line of electric refrigerators which high grade distributors need not hesitate to back to the limit.

Big values and low prices have always been the foundation of Absopure policy. It is a well-known fact that any product which gets very far must not only possess quality but must carry a price that attracts many customers.

We like to have our outlets do a maximum business and make money, so we provide a large market by means of low prices. Volume and our manufacturing skill are depended upon to keep costs down so we can accomplish this purpose.

Big values and low prices are just as important as ever in securing business. Both reach their climax in the New Absopure Line.

The Absopure Line is well known, having been on the market for several years. Large numbers of our refrigerators are in daily operation, not only in the United States but in many foreign countries. In truth, the sun never sets on Absopure. Here is a selling asset of vital importance.

Further, the Absopure Line is complete, providing an installation for every domestic and commercial purpose. Every distributor knows what this means in enabling him to cash in on sales opportunities and meeting competition.

The Absopure Franchise, in brief, is a money-making proposition which every distributor should investigate.

We desire at this time to make connections with a few more high grade, substantial distributors and invite applications from such firms as feel that they can qualify.

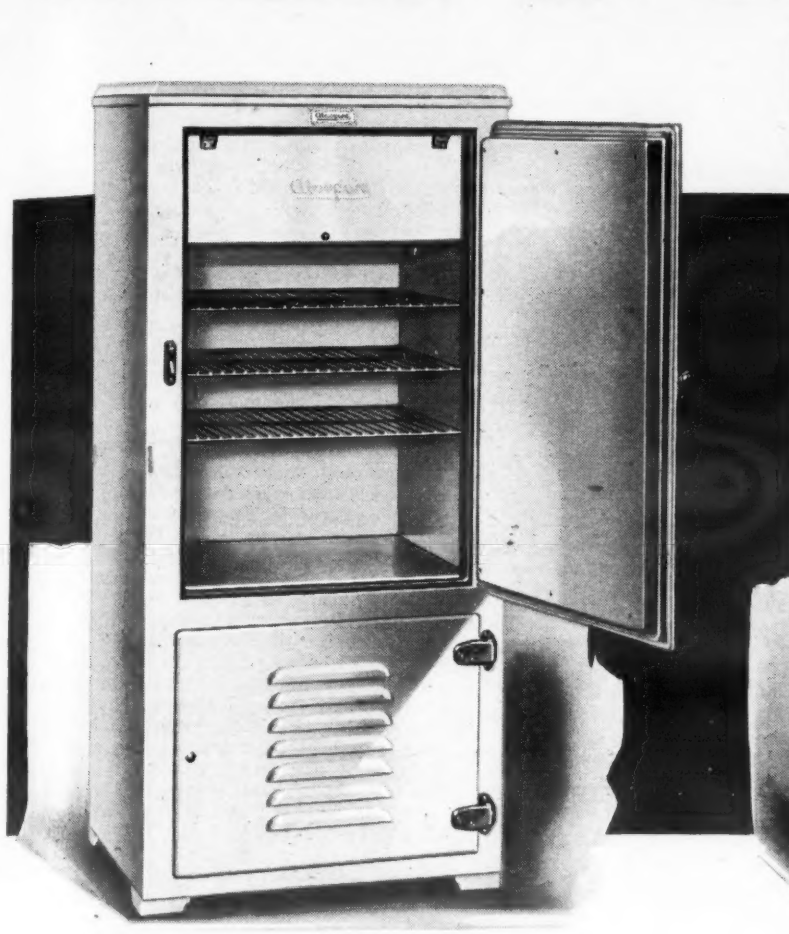
Your territory may be open, so write, phone or wire today.

ABSOPURE REFRIGERATION CORPORATION, DETROIT, MICH.

Plants in DETROIT and LOUISVILLE

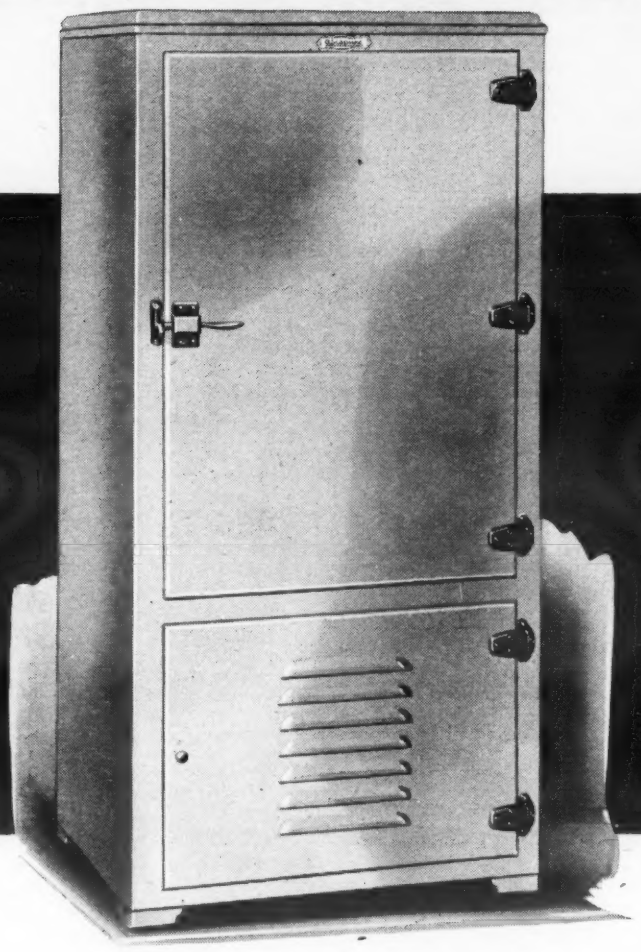
Absopure

REFRIGERATION



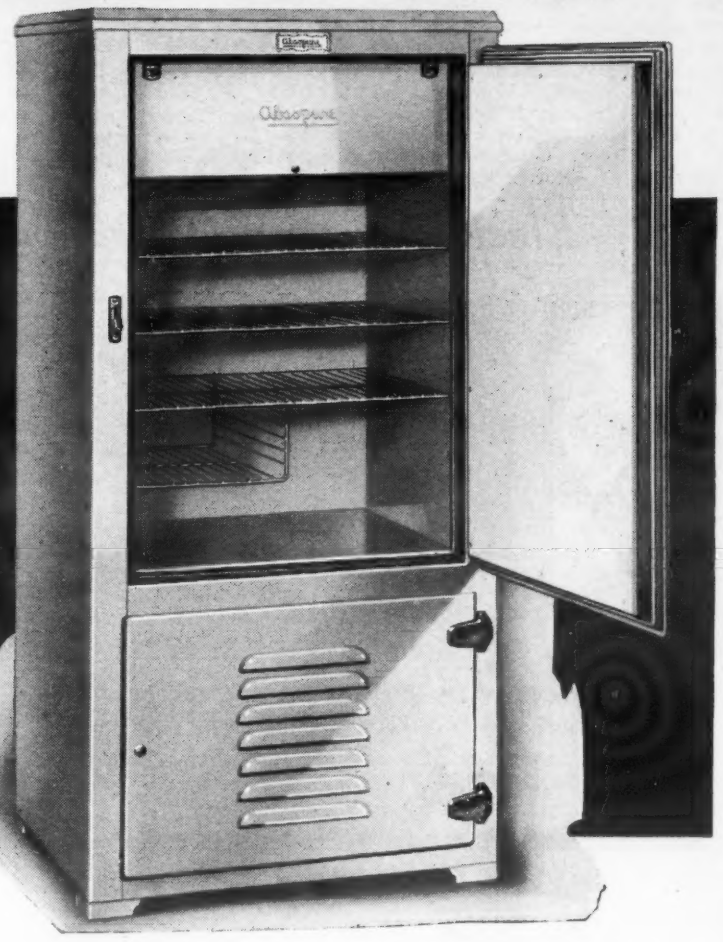
The above photograph shows the Absopure American Beauty porcelain interior cabinet—open. This model in all-porcelain—cabinet by Seeger—is the same in arrangement as the above, but is entirely finished in beautiful wnite porcelain—exterior and interior.

List price.....$260.00



The Absopure Princess Electric Refrigerator is ideal for homes requiring large refrigerating capacity. It combines features which make it a genuine delight to the owner. It also possesses Absopure quality through and through. All steel, white satin lacquer exterior—porcelain interior.

List price.....$275.00



This photograph shows the Absopure Princess porcelain interior cabinet—open. The same model in all-porcelain—cabinet by Seeger—has storage space of 7 cubic feet with shelf space of 15.3 square feet. Facilities for quickly preparing frozen desserts are unusual, and make this model a real friend to the hostess. Beauty and quietness will prove a source of satisfaction in any home.

List price.....$325.00

OUTSTANDING FEATURES of the New Absopure Line

The New Absopure Electric Refrigerators are:

(1) ECONOMICAL—Low in first cost and low in upkeep.
(2) DEPENDABLE—Unusually free from service requirements—always on the job.
(3) POWERFUL —They freeze quickly and otherwise out-perform ordinary refrigerators under any circumstances.
(4) BEAUTIFUL —Dignified, practical beauty which harmonizes with surroundings.
(5) SANITARY —Rounded corners—easily cleaned.

One of the New Absopure Electric Refrigerators will fit any refrigeration requirement. Freezing and condensing units are equally adaptable to conditions. Finally, Absopure Products are guaranteed by a competent organization of refrigeration specialists and everything considered offer one of the real selling opportunities now available.

Requests from reliable firms for distributor proposition will receive prompt attention.

The Absopure Commercial line with ten models of condensing units is complete in all respects, to fill every requirement in the electric automatic refrigeration field to and including 1½ h. p., and multiples.

ABSOPURE REFRIGERATION CORPORATION, DETROIT, MICH.

Plants in DETROIT and LOUISVILLE

Absopure

DR. KEGEL HONORED BY COLLEGE OF SURGEONS AND HEALTH OFFICIALS

Chicago, Ill.—Dr. Arnold H. Kegel, health commissioner of the city of Chicago, who has been frequently mentioned in the columns of the News during the past several months, was elected president of the International Society of Medical Health Officers at Minneapolis, Minn., Oct. 3. Another honor from the medical profession was conferred on Dr. Kegel on Oct. 18, when he received an honorary fellowship in the American College of Surgeons in recognition of his work in controlling infections in hospitals. The fellowship was presented during the Clinical Congress held at the Hotel Stevens, Chicago, last week.

D. H. DOLISON JOINS LIQUID COOLER

D. H. Dolison, a former distributor of Lipman refrigerating machines, has joined the Liquid Cooler Corp. as special sales and engineering representative. His duties will embrace building up dealer organizations in all parts of the country. Mr. Dolison has been in the refrigeration industry since 1923, chiefly as an engineer, and more recently in sales development work. He has spent a large portion of his time in the water cooler phase of refrigeration.

WACO DEALER INSTALLS UNITS IN 3 SCHOOLS

Waco, Texas.—Joseph H. Byrne, Kelvinator dealer, reports the installation of Kelvinator equipment in three of the Waco high schools.

Electrolux Hall of Fame

(Left to right)—W. A. Anderson, C. A. Flake, T. W. Doris and E. L. Jolly, Electrolux salesmen who ranked highest in sales recently. They have been elected to the new "Electrolux Hall of Fame," the honor society for topnotch gas refrigerator salesmen.

REVISED SAFETY CODE UP TO A.S.A. COMMITTEE

(Concluded from Page 1)

Kegel has taken a favorable attitude toward the revised stan lard.

The following extract from the revised co·le is taken from the last two pages of the thirteen-page document and includes only sections 1502-1510, dealing with tests for apartment dwelling systems:

1502: Any refrigerator employing a refrigerant that is not in itself readily apparent to a human sense shall have added thereto a substance to give it this characteristic.

1503: No evaporator will be permitted in any sleeping room.

1504: Every refrigerator, cabinet box, casing, or refrigerated space containing or enclosing any evaporator shall be firmly and securely anchored or fixed to a wall, floor and/or other immovable object, in such a manner as to hold such refrigerator, box, or casing and the evaporator securely in place.

1505: Every evaporator, unless constructed sufficiently strong to prevent injury in the ordinary and customary use thereof, shall be protected by a suitable shield to insure protection against such injury.

1506: Twenty pounds (20 lbs.) of refrigerant will be permitted in systems using pipe or tubing as specified in paragraph 1365, or protected seamless copper tubing for refrigerant lines, provided all the installation provisions of paragraph 1369 and the following are complied with:

(a) Such tubing to be connected by means of sweated or brazed joints or by means of flared or compression fittings of extra heavy type having the nut separated from the flare or compressed portion of the tubing by means of an intermediate ring in such a manner that the final pressure exerted on the joint by the tightening of such nut is applied to the joint through the medium of said ring. The intermediate ring shall not be required on joints made with a double flare which provides double thickness of metal on the flared portion of the tubing.

(b) Packless valves with hand-wheels such that valves may be readily opened or closed by hand are to be used at all main riser manifolds and at all outlet boxes on liquid and suction lines.

(c) A valve shall be located in the inlet end of each branch liquid line, and in the outlet end of each branch suction line, and in the liquid and suction lines of each service outlet.

1507: Fifty pounds (50 lbs.) or less of refrigerant will be permitted in systems using pipe or tubing as specified in paragraph 1365, or protected seamless copper tubing for refrigerant lines, provided the provisions of paragraph 1506 and the following are complied with:

(a) The pressure imposing element, a condenser, liquid receiver and distribution header are located in a separate machinery room.

(b) Not over two pounds (2 lbs.) of refrigerant is contained in each evaporator located in living quarters.

(c) The high pressure shall be divided by means of a distribution header located in the machinery room into sections of not over eight (8) evaporators each. A check valve shall be placed in the liquid line of each suction at the distribution header.

(d) The pressure imposing element is provided with both a high and low pressure limiting device.

(e) Not over twenty (20) per cent of the total charge shall be contained in the high pressure side between the pressure imposing element and the check valves in the distribution lines.

1508: One hundred pounds (100 lbs.) of refrigerant or less will be permitted provided:

(a) The pressure imposing element, condenser, liquid receiver, distribution headers and corresponding end of the enclosing conduit system are in a separate machinery room.

(b) Not over two pounds (2 lbs.) of refrigerant is contained in each evaporator located in living quarters.

(c) Each evaporator must be tested to twice the pressure specified in paragraph 1370.

(d) The conduit or pipe system enclosing the copper tubing of a protected copper tubing system, is made sufficiently tight that it requires one hour for an air test pressure of two pounds to drop to one pound. The suction pipe may be the enclosing pipe, provided it complies with paragraph 1365. After the conduit system has been tested it shall be permanently vented above the roof.

(e) Provided the conduit system encloses all joints from the machinery room to each evaporator, so that the only leak which can escape, except into the conduit, would be one in the body of the evaporator.

(f) Not over ten (10) per cent of the total charge shall be contained in the high pressure side.

1509: One hundred pounds (100 lbs.) or less of refrigerant will be permitted, provided:

(a) The pressure imposing element, condenser, liquid receiver, distribution headers and corresponding end of the enclosing conduit system are in a separate machinery room.

(b) Not over three (3) pounds of refrigerant can escape in eight (8) hours from any break in any part of the system not located in the machinery room.

1510: Two hundred pounds (200 lbs.) or less of refrigerant will be permitted, provided the provisions of paragraph 1508 and requirements (c) and (d) of paragraph 1507 are complied with.

TEMPRITE COOLERS TO PORTO RICO

Detroit, Mich.—The Liquid Cooler Corp. announces distribution of Temprite Coolers in San Juan, Port Rico, through the Gonzales Padin Company.

COOPERATION IN THE REFRIGERATION FIELD

(Concluded from Page 14, Column 5)

necessity for adequate refrigeration to protect food properly.

It is my own opinion that in the next few years we will learn a great deal about the detail temperatures that are necessary for the proper preservation of different kinds and classes of foods. Today we know little or nothing about it. We have ideas and a little experience, but very little is scientifically known of the proper temperatures and other conditions necessary for the best preservation of food, including the vitamin content and all the other things that may enter into it besides mere spoilage. There is one of the opportunities for co-operation by the manufacturers and others in the industry.

A few thousand dollars, for example, spent in college fellowships and scholarships in the next few years will undoubtedly bring out some most valuable information on that subject. This will undoubtedly be recommended to not only the manufacturers of equipment, but to shippers and growers of food and food products, to whom it is a very vital subject.

Codes, Patents

The next opportunity that I will mention, also very briefly, as an opportunity for co-operation in promoting refrigeration, is in promoting uniformity of national, state, and municipal safety codes. That has been very thoroughly discussed in the A. S. R. E. meetings and it is hardly necessary to mention it further. But I should like to emphasize that here is one place where the industry is looking to the engineer to offer the answer as to uniformity in codes. There is an opportunity for co-operation in the patent situation as it stands now. Patents represent one of the points of issue or one of the danger points in the refrigeration field. There is an opportunity for co-operative effort for the benefit of the industry as a whole. There is an opportunity to avoid dissipation of the capital of the industry in mere litigation rather than in industrial development.

Lastly, I should like to mention the desirability of some co-operation in encouraging the inventive minds that are now working rather diligently on what I should call related merchandise. Whenever an industry becomes profitable or attracts public attention, it invariably sets other minds to work as to how they may capitalize upon the opportunity presented by this, we will say, successful industry.

To illustrate my point, when automobiles were developed, it immediately set a great number of minds to work producing accessories, and the automobile industry has been advanced by the efforts of these independent minds working simply to produce some little device or improvement or accessory for the automobile.

In the same way there are now at work many men thinking in terms of accessories for refrigeration. Some of you may be puzzled as to what I mean because there are so few of them available now, but there are many in the making. I refer to devices which will use refrigeration, which will make it possible to produce foods in new attractive forms and varieties. There will be, undoubtedly, a considerable number of accessories. The industry should encourage the production of those devices because they add to the public interest in the service as well as aiding the development of the market for it.

There is also an opportunity for co-operation in the study of style trend and the possibilities of style in the design of equipment. Naturally I refer to such things as color. We have made some attempts at color in the refrigeration industry, but those of you who have studied it will agree that we have not quite got to the bottom of the subject yet.

KEGEL PUTS OKAY ON NEW PEERLESS MULTIPLE SYSTEM

Issues Letter Pending Action Of Chicago City Council

Chicago, Ill.—An important development in the situation which has occupied the attention of the industry since early last summer is the official approval by Dr. Arnold H. Kegel, health commissioner, of the multiple system of refrigeration for apartment house installations set up by the Peerless Ice Machine Company of Chicago to comply with the "yardstick of safety" proposed by the commissioner as a basis for an ordinance regulating the installation of such systems in the city of Chicago.

As a result of two fatal accidents in Chicago early last summer, which a coroner's jury charged, were due to leakage of methyl chloride from multiple refrigeration systems, widespread newspaper publicity was given to the possible danger attending the use of this refrigerant. A Special Industry Committee was selected to co-operate with a subcommittee of the Chicago City Council Health Committee to work out safety regulations. A long series of meetings was held in which a conflict of opinion developed among engineers and city officials as to the cause of the accidents and the proper means of preventing their recurrence. Ordinances were drafted by the Special Industry Committee, by the Health Department, and by the Boiler Inspection Department of the city. The situation was further complicated by the uncertain status of the proposed National Refrigeration Code which has been under consideration for several years and which was awaiting final approval by the American Standards Association.

During the proceedings Health Commissioner Kegel injected an entirely new idea in code practice by proposing that all specifications dealing with the details of piping and equipment be eliminated and that a test be established as the basis for determining the safety of a system. He demanded that multiple systems be so devised that not more than two pounds of refrigerant could escape into the living quarters of any residential building in the event of a complete rupture in any point in the system.

Engineers representing leading manufacturers of multiple systems insisted that the requirements could not be complied with, while two prominent engineers, namely, E. T. Williams, consulting engineer of Servel, Inc., and a pioneer in the refrigeration field, and George B. Bright, consulting engineer of Detroit and past president of the American Society of Refrigerating Engineers, took the position that the requirements were reasonable. They presented diagrams of systems which they claimed would meet the Kegel demands. J. J. Aeberly, an engineer of the Chicago Health Department, also undertook to prove that the safety measures sponsored by the department were practical.

Peerless System Officially Approved by Commissioner Kegel

During the weeks of discussion regarding the proposed safety measures, the Peerless Ice Machine Company, which manufactured the equipment involved in the two accidents, refrained from all sales effort and devoted their attention to a thorough inspection of all systems installed in the city of Chicago. When the question arose as to the practicability of the safety systems proposed by Messrs. Williams, Bright and Aeberly, the Peerless Company offered to set up each system for inspection and test. As a result of this work the Peerless Company devised a system incorporating most of the features proposed by the Health Department. In a letter dated September 24 the Chicago Commissioner of Health gave official approval to this system and, according to reports, a number of installations are now being made in the city of Chicago. The letter of approval follows:

"Your letter of September 24, regarding our statement made on Friday, September 20, 1929, at a public hearing on mechanical refrigeration before the Committee on Public Health of the City Council, has been received.

"At that time it was clearly indicated by members of this Department that in our opinion the design which you exemplified in principle by the model constructed in your establishment and consisting of a gas-tight machinery room venting to the outside air, a primary refrigerating system of piping and connections enclosed in a substantial gas-tight secondary system, also venting to the outside air, and an evaporator constructed of 5/32 of an inch steel plate with welded joints that have been subject to rigid inspection and test must be considered by us as fulfilling at least the minimum requirements of the ordinance now before the committee entitled 'Dr. Arnold H. Kegel's Ordinance Regulating Domestic Refrigeration, August 9, 1929.'

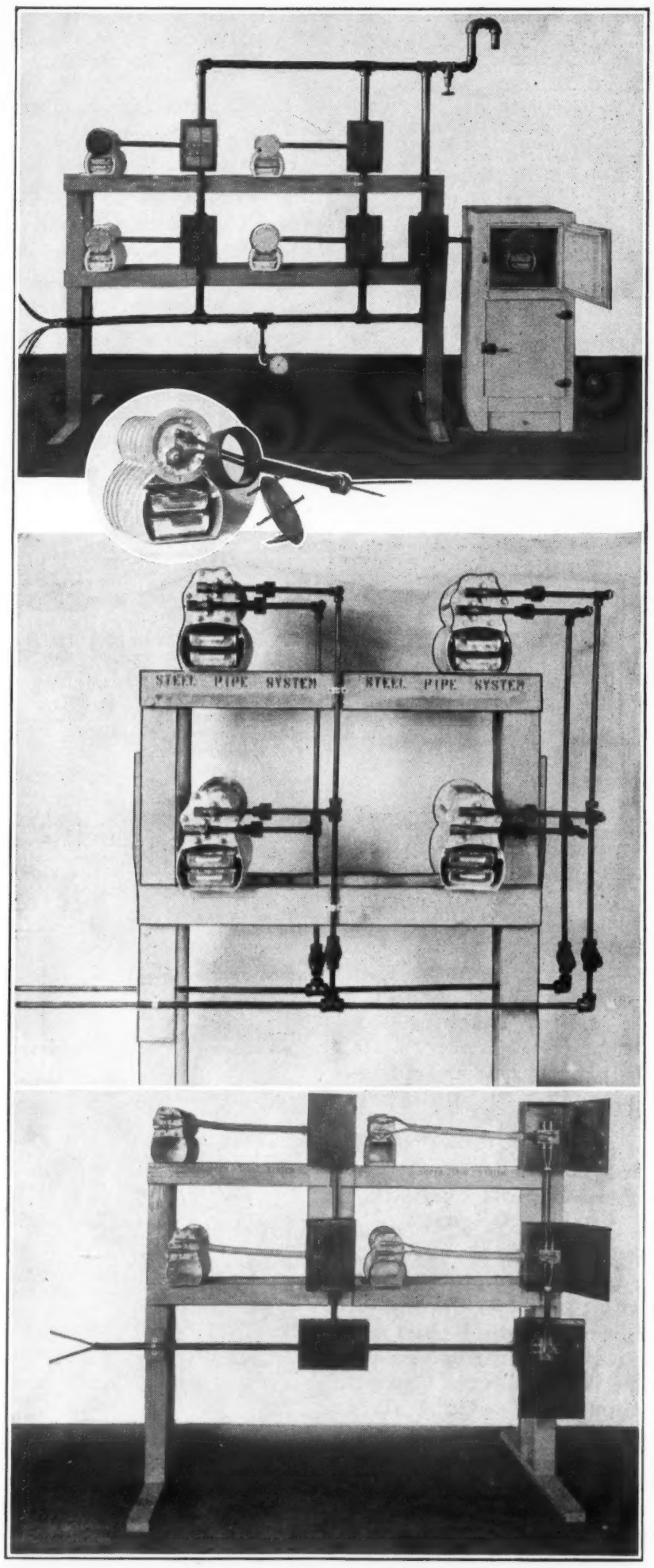
"We are, therefore, ready again to state that it is our opinion that such a system conforms with the ordinance indicated above, which assures reasonable protection to the public, and we wish to express our appreciation of your co-operation."

Three Plans Proposed to Meet Chicago Safety Demands

System No. 1—Below is shown the "Kegel System" which consists of a primary copper tube system, the same as has been generally used, but with the addition of a secondary iron pipe system fully enclosing the primary system. The iron pipe enclosure starts at the compressor room, which must be a separate machinery room vented to the outside of the building, and runs up to the heads of the evaporators. Special junction and valve boxes at various points where branch lines are taken off are provided.

In the circle is shown the evaporator connection broken apart for the purpose of photography. It will be noted that the banjo arrangement is designed to extend up to and include the final primary connections of the copper tubing on the head of the evaporator.

The secondary system is gas-tight and must stand a pressure of two or three pounds. Under ordinary circumstances it is to be vented to the roof of the building and arrangement made whereby closing this vent will provide an entirely sealed secondary system. The city inspector may then place a pressure on this secondary system for test purposes at any time without interfering in any manner with the operation of the refrigeration equipment.



System No. 2—Above is illustrated the standard steel pipe system as it would be installed under the Gearon or Boiler Inspection Dept. ordinance. There is no copper tubing inside of the pipes. The refrigerant is contained in the extra heavy steel pipe and fitttings as shown. This system is already widely used in connection with ammonia machines and has also been used for methyl chloride systems.

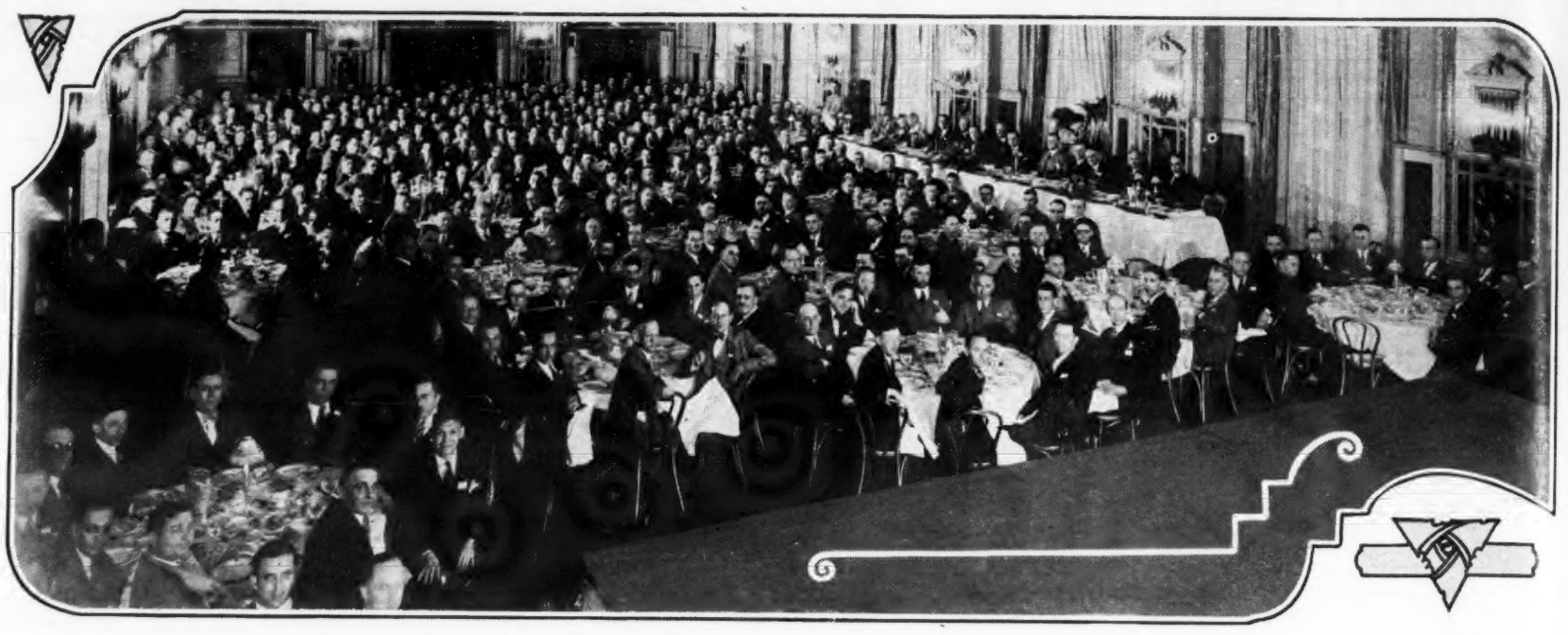
System No. 3—Above is shown the standard copper tube system now in general use for multiple installations in apartment buildings. Rigid and flexible conduit are used to give mechanical protection to the copper tubing. Junctions are made in ordinary iron switch boxes such as are used in electrical work. This secondary system is not gas-tight.

FEDDERS ENGINEER HEADS NIGHT COURSE IN REFRIGERATION

Buffalo, N. Y.—Seneca Vocational Evening High School has added to its curriculum a course in electric refrigeration because of the advancement this industry has made during the past few years.

The course, which is under the direction of J. Askins, chief experimental engineer of Fedders Mfg. Co., manufacturers of cooling units and condensers, consists of a general study of heat, heat transfer, general theory of refrigeration, household machines, machine calculations and installations. It is planned to make the course more theory than practice, although there will be some laboratory work done. Enrollment is limited to 25 students and this number has already enrolled for the course. Lectures are given by sales and service managers of various refrigeration companies in the Buffalo district. Dr. E. S. Pierce is principal of Seneca high school.

Kelvinator Distributors See New Models



KELVINATOR banquet to distributors at the Book-Cadillac Hotel, Tuesday, October 8. At the speakers' table (left to right) G. M. Evans, works manager; H. A. Lewis, treasurer; Godfrey Strelinger, manager of branches; J. S. Sayre, sales manager; A. H. Goss, former Kelvinator president, now on the board of directors; Robert Ripley of New York, cartoonist of "Believe It Or Not;" H. W. Burritt, vice-president; G. W. Mason, president; Harlan T. Pierpont, member of the board of directors; Dr. Wm. S. Sadler, Chicago, writer and lecturer; D. B. Lee, H. G. Perkins, and Merlyn Wiley, attorney.

Exports of Refrigeration Units

July and August Exports Reported by Bureau of Foreign and Domestic Commerce

Country of Destination	July				August			
	Units up to ¼ ton capacity		Units from ¼ to 1 ton capacity		Units up to ¼ ton capacity		Units from ¼ to 1 ton capacity	
	No.	Value	No.	Value	No.	Value	No.	Value
Austria	111	16,526	....	.....	20	2,774	....	.....
Azores & Madeira Islands	...	.....	....	.....	1	330	....	.....
Belgium	134	23,179	91	17,708	518	77,725	174	26,940
Czechoslovakia	29	3,548	....	.....	....	.....	40	6,503
Denmark	32	6,931	2	249	24	4,115	33	3,610
Finland	...	.....	2	326	....	.....	....	.....
France	456	48,068	35	6,531	282	37,339	1	176
Germany	664	99,480	40	6,936	999	433,957	....	.....
Gibraltar	...	.....	....	.....	2	742	....	.....
Greece	1	172	38	6,080	....	.....	....	.....
Hungary	...	.....	3	451	....	.....	....	.....
Italy	67	8,314	1	200	25	2,689	2	540
Malta, Gozo, and Cyprus	1	365	....	.....	....	.....	....	.....
Netherlands	88	12,845	36	5,935	5	773	39	7,230
Norway	15	2,459	....	.....	3	428	30	4,149
Poland and Danzig	17	2,113	....	.....	....	.....	....	.....
Portugal	34	7,932	....	.....	....	.....	....	.....
Rumania	3	732	....	.....	21	2,677	....	.....
Spain	58	13,205	1	585	138	27,911	6	1,559
Sweden	54	6,420	3	753	27	4,525	26	4,278
Switzerland	160	27,473	3	515	490	48,784	....	.....
United Kingdom	1,329	163,193	98	26,149	711	81,461	20	2,625
Yugoslavia and Albania	25	11,619	....	.....	....	.....	....	.....
Canada	1,167	182,163	20	8,826	1,464	212,556	20	4,537
British Honduras	...	.....	....	.....	....	.....	1	220
Costa Rica	12	2,220	....	.....	6	1,896	....	.....
Honduras	4	952	....	.....	6	789	....	.....
Nicaragua	2	696	....	.....	3	565	....	.....
Panama	28	5,511	....	.....	15	5,010	....	.....
Salvador	12	2,222	....	.....	5	1,125	....	.....
Mexico	78	15,639	2	1,157	80	13,610	2	696
Bermudas	15	3,073	5	1,097	24	3,649	....	.....
Barbados	10	1,895	....	.....	....	.....	....	.....
Jamaica	...	.....	....	.....	1	363	....	.....
Trinidad and Tobago	2	765	....	.....	....	.....	....	.....
Other British West Indies	...	.....	....	.....	2	409	....	.....
Cuba	51	9,543	9	2,502	109	14,646	1	302
Dominican Republic	4	970	....	.....	11	2,679	....	.....
Netherland West Indies	1	162	1	232	5	1,358	....	.....
Haiti, Republic of	3	520	....	.....	2	394	2	280
Virgin Islands of U. S.	...	.....	....	.....	1	519	....	.....
Argentina	150	20,261	86	14,838	438	51,542	1	405
Brazil	141	22,752	30	7,567	53	6,685	43	6,888
Chile	13	1,266	17	2,666	....	.....	6	913
Colombia	20	4,102	1	298	35	4,618	4	888
Peru	7	1,339	....	.....	....	.....	....	.....
Uruguay	68	12,142	....	.....	36	6,491	192	38,820
Venezuela	35	7,222	37	5,535	3	306	3	2,091
Aden	3	459	....	.....	....	.....	....	.....
British India	348	50,033	2	509	32	5,384	....	.....
British Malaya	39	7,855	....	.....	94	14,648	9	2,195
Ceylon	2	239	....	.....	....	.....	1	558
China	93	16,616	1	232	43	9,919	1	456
Java and Madura	20	3,499	....	.....	49	8,247	....	.....
Other Netherland E. I.	17	2,956	....	.....	14	3,470	....	.....
French Indo-China	22	3,975	....	.....	....	.....	6	1,165
Hong Kong	30	5,115	12	1,800	10	1,398	27	4,095
Japan	44	13,099	....	.....	62	8,450	1	352
Kwantung	13	2,075	....	.....	....	.....	....	.....
Palestine	1	212	....	.....	....	.....	....	.....
Philippine Islands	115	23,032	....	.....	14	1,722	77	12,840
Siam	6	1,076	....	.....	8	1,323	....	.....
Turkey	14	2,200	....	.....	16	2,229	....	.....
Australia	466	65,231	186	26,248	247	44,815	211	40,639
French Oceania	1	265	109	17,590	....	.....	....	.....
New Zealand	59	9,273	....	.....	44	5,855	334	51,507
British East Africa	4	1,215	....	.....	3	581	....	.....
Union of South Africa	243	50,594	2	951	366	39,672	1	482
Gold Coast	13	2,376	....	.....	5	719	1	315
Nigeria	10	1,281	....	.....	....	.....	1	337
Other British W. Africa	...	.....	....	.....	1	206	....	.....
Egypt	16	2,246	....	.....	1	282	....	.....
Algeria and Tunisia	54	5,654	....	.....	20	2,518	....	.....
Morocco	3	326	7	1,189	10	1,855	....	.....
Total	6,737	$1,020,891	880	$165,655	6,604	$1,208,733	1,316	$228,571

and Hear Plans for 1930 at Annual Convention in Detroit

ELECTRICAL MFRS. ASSOCIATION ELECTS COLLENS PRESIDENT

New York, N. Y.—The National Electrical Manufacturers' Association announces the election of Clarence L. Collens, of Cleveland, as president for the forthcoming year, succeeding Huntington B. Crouse.

Mr. Collens, who is president of the Reliance Electric and Engineering Co., has now served the electrical manufacturing industry as the head of every association of which he has been a member. He has been president of the Electric Power Club, the Electrical Manufacturers' Council, and the Electrical Manufacturers' Club. Awarded the McGraw Award for his part in bringing about the organization of N. E. M. A. three years ago, Mr. Collens has been a Governor of the Association and vice-president of the Policies' Division since its inception.

Five vice-presidents were also elected for 1929-30. They are: S. L. Nicholson, Westinghouse Electric & Mfg. Co., New York; C. H. Strawbridge, Goodman Mfg. Co., Chicago; W. E. Sprackling, Anaconda Wire & Cable Co., New York; D. R. Bullen, General Electric Co., Schenectady, N. Y.; Louis B. F. Raycroft, Electric Storage Battery Co., Philadelphia.

GENERAL STOREKEEPER INSIDE ARCTIC CIRCLE BUYS BAKER MACHINE

Refrigeration has no climatic bounds, as shown by an installation of a refrigerating plant made by the Baker Ice Machine Co., Omaha, for Michael de Michaeli at Fort Yukon, Alaska.

A glance at the map shows that Fort Yukon is located in northeastern Alaska, near the junction of the Yukon and Porkupine rivers, and about forty miles inside of the Arctic Circle.

The summers at Fort Yukon are of short duration, the frost leaving the ground for only a depth of eight inches. When the river is open the salmon swim up from the sea, about five hundred miles distant, for spawning.

The salmon run is looked upon as a welcome event by the 309 people who make up the population of Fort Yukon. Necessarily, because of climatic conditions, the daily diet of those living at Fort Yukon has little variation, so that choice salmon steaks are considered a delicacy by the traders, trappers and miners.

Mr. de Michaeli owns a small general store. He admits his liking for fresh salmon. He had learned that modern refrigeration was used to freeze and store fresh fish in other parts of the world where salmon abound, so he placed an order for a small Baker refrigeration plant through the company's house at Seattle.

CANADIANS PROSPEROUS, DAIRY BUSINESS GROWING; REFRIGERATION IN DEMAND

WITH the Canadian farmer prospering, and with signs of continued prosperity ever evident, the electric refrigeration industry is finding the Dominion one of the most fertile markets for development in the export field. This is the viewpoint of Earl Black, Canadian sales and service representative for the H. M. Robins Company, export agents for Copeland, who has been spending some weeks in a swing through the Canadian west.

"The Canadian farmer's position today is excellent," Mr. Black stated. "Though the wheat crop this year has been small, the quality has run high, most of it being No. 1 grade. This means that the cost of harvesting and threshing has been relatively small and that the prices have been good. Canadian wheat has been selling far above the price for the American product, so much so that many American farmers across the line have been shipping their wheat into Canada and marketing it there, finding it more profitable to do this even with paying the duty than to market it at the prevailing prices in the American market.

"Canada's creamery business is growing rapidly in the Northwest, and, as the Canadian dairyman is decidedly up-to-date when it comes to equipment, there is a strong demand for electric cooling equipment.

"In the cities there is an unprecedented amount of building going on. Official statistics show that permits for building and construction in Canadian cities for the first eight months of this year totaled $186,605,059, which is an increase of $23,000,000, or 16.1 per cent, over the corresponding period a year ago. Much of this building is being done by the big companies, showing a faith in Canada's future. In Regina, Sask., a new million-dollar department store is planned by the Hudson Bay Company, while in Calgary this company is building a large extension to its present store which will give it a building covering an entire block.

"All of this augurs well for the electric refrigeration industry, for equipment sales run hand in hand with building."

GIBSON COMPANY SETS UP EXPORT DEPARTMENT, APPOINTS DISTRIBUTORS

Greenville, Mich.—The Gibson Refrigerator Co., manufacturers of display cases, market coolers and commercial refrigerators, are now actively going after export business, having established a well organized export department of their own, with competent personnel and the facilities necessary to take care of all demands of over-seas markets.

Although no serious effort has been made heretofore to engage in foreign distribution, the Gibson company has already shipped their products to many foreign countries.

This company has made an investigation of the refrigerator requirements of the principal markets of the world, as they affect household and commercial equipment. They are at the present time engaged in appointing distributors in foreign markets.

100 FRIGIDAIRE DEALERS MEET IN OMAHA, REPORT BIG GAINS IN BUSINESS

Omaha, Nebr.—Frigidaire dealers of the Omaha territory met at the Fontenelle Hotel Friday, October 4, for an all-day session. One hundred dealers were present. The meeting was called by A. F. Eichenlaub, manager of the Omaha branch. This territory includes all of Nebraska and the western one-fourth of Iowa. The business shows a gain of 50 per cent over last year, according to Mr. Eichenlaub.

Factory officials present and speaking during the day were: P. K. Abry, regional manager; O. T. Madsen, educational supervisor; H. W. Smith, zone manager for Omaha; Joe Pepper, supervisor of city sales at Omaha, and L. N. McFarland, in charge of contracts for Omaha branch. Stress was laid on the fact that refrigeration is now an all-year-round proposition, and dealers were urged to continue the drive all winter.

WAGNER ELECTRIC MOVES TWO BRANCH OFFICES

St. Louis, Mo.—Wagner Electric Corporation announces the removal of two branch sales offices. The Milwaukee sales office and service station has been moved from 501 Broadway to 525-27 Broadway. The St. Louis sales office has been removed from 505 Shell Building to 909-9 Plaza Olive Building. Those removals were necessitated by increased business, requiring more space.

AYERS-LYON APPOINTED AGENTS FOR COPELAND

Boston, Mass. — Ayers-Lyon Corp., Statler Bldg., has been appointed Copeland representative for eastern Massachusetts, Rhode Island, Maine, Vermont and New Hampshire.

Last April, Bert Ayers and Bill Lyon established their business as factory representatives in the New England States for Noblitt Sparks Industries, Indianapolis, Ind., Armstrong Electric & Mfg. Co., Huntington, W. Va., and they have now been appointed by Copeland Sales Co., Detroit, Mich.

George W. Sprague, who has been connected with Copeland for the past two years throughout New England territory, has joined the Ayers-Lyon Corp., and will work with the Copeland and the Northeastern Radio Corp., recently appointed Copeland distributors.

FRIGIDAIRE DEALERS MEET AT EVANSVILLE

Evansville, Ind.—Frigidaire dealers and salesmen in southern Indiana, Illinois and western Kentucky assembled at the Frigidaire sales branch here on October 15 for sales promotion meeting. George F. Mox, who was recently named as manager of the branch, addressed the group. Honors were accorded salesmen who have completed the first three-quarters of the year with exceptional records.

EVANSVILLE ROTARY HEARS ADDRESS BY VINING

Evansville, Ind.—V. E. Vining, sales manager of Servel Sales, Inc., spoke on "Electric Refrigeration," September 28, before the local Rotary Club. He also gave an address in the Evansville Y. W. C. A. campaign, which opened recently.

G. E. DISTRIBUTOR SETS DAYTON POSTAL RECORD

Dayton, Ohio.—F. P. Lutz Co., Jefferson and Second Sts., distributor of General Electric refrigerators, set a record for the number of special delivery letters mailed here during any one day, when it sent out 1,000 of them October 3, according to L. C. Weimer, postmaster.

The letters were addressed to grocers, restaurant and delicatessen owners and pertained to the new commercial refrigerator models announced recently by the General Electric Co.

In commenting on the delivery of the specials, Postmaster Weimer said that the city was divided into sections, similar to the way a pie is cut, and each delivery man was assigned a section. This made it possible to deliver all the letters the day they were deposited.

The Standard Presentation

A Money-Making Tool for Dealer and Manufacturer

By Richard C. Hay

OF all the products in the selling of which a standard sales presentation is used, none is as well adapted to this method of selling as is the domestic electric refrigerator. It is surprising, therefore, to find some manufacturers of this type of product failing to make use of a standard sales presentation, and it is all the more surprising to find many dealers who are convinced that the use of a standard sales presentation is unnecessary and undesirable.

For each brand of domestic electric refrigeration on the market, there are hundreds, and in some cases thousands of salesmen trying to interest consumers in the product. If a standard sales presentation is used, it is fairly certain that the sales messages on the particular product will be carried to the consumer-prospect in a fairly uniform fashion. If a standard sales presentation is not used, it is equally certain that there will be almost as many types of sales messages on this product as there are salesmen.

Few salesmen are sufficiently analytical to want to study their past sales to try to locate the reason or reasons why any particular sale was lost. More often than not, if a salesman who does not use a standard sales presentation would go over his arguments as he presented them to a prospect—an argument which failed to result in a sale, he would invariably be able to put his finger on one or more omissions in that sales talk which might have brought his effort to a more successful conclusion.

All of which leads up to the point that the best definition for a standard sales presentation is this:

> The standard sales presentation is based upon those arguments which have been found to be most result-getting, and is a track for the salesman to run on in making a selling talk. The "track" is presumed to lead always to the same place, namely, a completed sale. The selling talk is designed to put into the salesman's mind a thorough understanding of those arguments which are most likely to result in a sale, to give him something to say which will, if possible, forestall objections that will naturally arise in a prospect's mind.

To many salesmen, the standard sales presentation is objectionable on the grounds that it is a "canned" talk, that if the salesman uses it it will "stifle his personality"; that "it makes a parrot of the salesman"; that "it doesn't sound natural to the prospect"; and other arguments, ad lib.

Nothing could be further from the truth. In an investigation just completed, during which opinions were received from leading sales executives in many fields of business as to the value of a standard sales presentation, these opinions coming from executives in the electric refrigeration industry, automobile industry, oil burner industry, and others of a similar character, not a single sales executive was found who believed that the standard sales presentation should be followed exactly and in detail by a salesman in making his selling talk.

On the other hand, executive after executive expressed the belief that for such products as electric refrigeration, automobiles, and so forth, the standard sales presentation is one of the most important selling tools available to the salesman.

Copeland Executive Explains Value of Standard Sales Talk

The case for the standard sales presentation is very well expressed by W. D. McElhinny, vice-president and director of sales of the Copeland Sales Corporation, who, in talking before conventions of dealers and salesmen, uses the following argument to show them the importance and the profit value of a standard sales presentation:

"We picture the salesman trying to operate without a demonstration—his hit-or-miss method of starting and finishing; how he can be thrown off the track, and how many points he can miss; the difference between a salesman who, one day "hits on all six cylinders" and who, the next day, barely struggles along on one, and the reason for it.

"We show the man operating without selling tools—trying to sell from literature; trying to guess, under pressure, the one or two or three points that are most interesting to the prospect. We contrast this with the six or seven most successful men in our organization—the very complete story that they always told—and point out that after all was said and done, their daily story varied very little, and they were merely giving a set demonstration of their own. We make the point of the advantages of combining these six or seven stories into one that would cover all points. We tell them how these men were assembled together, the work that was done by them, and how the standard sales demonstration of the company was finally written.

"We have made a point in our large conventions of having a young lady step on the stage with a violin. We have asked her to play a piece of music, say 'Home, Sweet Home.' We have then pointed out that she was a salesman—that she sold so much music for so much money at that convention—but that she did not, under pressure, have to compose her selling arguments—that she did not have to discover in her brain, almost simultaneously, every note of that music. That, if she had not known her sales presentation, which happens to be 'Home, Sweet Home,' and she had had to compose it, the results could not possibly have been good. That because she knew her sales presentation, it was not necessarily a canned demonstration—that her music—she could change it to suit her own taste, and make it better or she could put her own personality into worse, depending upon her own skill.

"That to ask a salesman to compose a selling talk three times each morning and three times each afternoon and make that selling talk good, have it meet the ideas of each prospect, was putting an enormous burden on the salesman. We were, therefore, bringing them a selling talk that would make the task easier. It was a canned sales talk, to be sure, to be learned, and once learned and memorized to be used, not as a 'canned talk' but simply as a guide for the individual salesman's work with prospects—a map or chart that he knew had been successfully used by the best men in our business—something that would allow him to use his brain, to watch his opportunity, to study the prospect's reaction, and to have ease and confidence while talking to prospects. Something that would give him an advantage that he could have in no other way."

Frigidaire Strongly Advocates Memorized Sales Demonstration

Another and very interesting comment on the value of the standard sales presentation is given by R. L. Lee, manager sales promotion of the Frigidaire Corporation. The experiences and opinions of executives in this Organization certainly should be valuable in pointing to the advantages to be gained through the use of a standard sales presentation. Mr. Lee says on this point:

"Frigidaire, together with its parent Organization, Delco Light, also the Company from which many of the original Delco Light men came, all have been strong advocates of the memorized sales demonstration. The experience of these companies in this regard covers a great many years and today, we, of Frigidaire, with its backing, are still as strong for the memorized sales presentation as we ever were.

"You will notice that I am placing emphasis on the memorizing and have not referred to the "canned" sales talk. This is a point that many sales managers fail to recognize. The real value to bebe gained is in the memorizing. One cannot go over a sales presentation a sufficient number of times necessary for memorizing without automatically ending up with the salient sales points of this product indelibly branded in his mind in proper order. The aim in our estimation, therefore, of the memorized sales presentation is to bring this result about rather than expecting the salesman to recite in the presence of his prospect, word for word, his sales presentation.

"Our candid opinion is that, regardless of the end to which the sales manager might go, the percentage of salesmen who will use a verbatim demonstration in the presence of a prospect will be extremely low. We have proved conclusively, however, that a salesman who has been compelled to memorize the demonstration will, unconsciously, adopt much of the phraseology from the standard presentation, and will, invariably tend to follow the sequence of the points as outlined.

"The conclusion we have reached regarding the so-called 'canned' sales talk is that it is extremely important to decide whether you wish your salesmen to give a verbatim demonstration to the prospect, or whether you are going to insist that the salesmen memorize the story. The two are entirely different. With the experience we have, I would say it was almost impossible to attempt to force salesmen to give the verbatim demonstration, and if it were possible, the effort would be clearly out of proportion to the benefit gained.

"In the training of salesmen, Frigidaire insists that all new men be able to give to their instructors the Standard Firgidaire Sales Demonstration. That demonstrates how important we believe the memorizing feature is.

"We know definitely that new salesmen start producing in a shorter time as a result of having learned the demonstration, than do those who have not learned this.

"It stands to reason, however, that indirectly, the Standard Sales Presentation affects the over-all-turn-over as a result of its effect on producing salesmen."

Then Mr. Lee makes a most interesting statement:

"I consider it almost folly, over a period of time, to attempt to force an organization to use a verbatim demonstration, but under no circumstances would I ever give up recommending that every salesman in a specialty selling organization be forced to memorize astandard presentation."

All salesmen use standard selling talks, as do politicians, actors, doctors, and other professional men, public speakers—we all find ourselves saying the same things in the same way to convey the meaning of our thoughts.

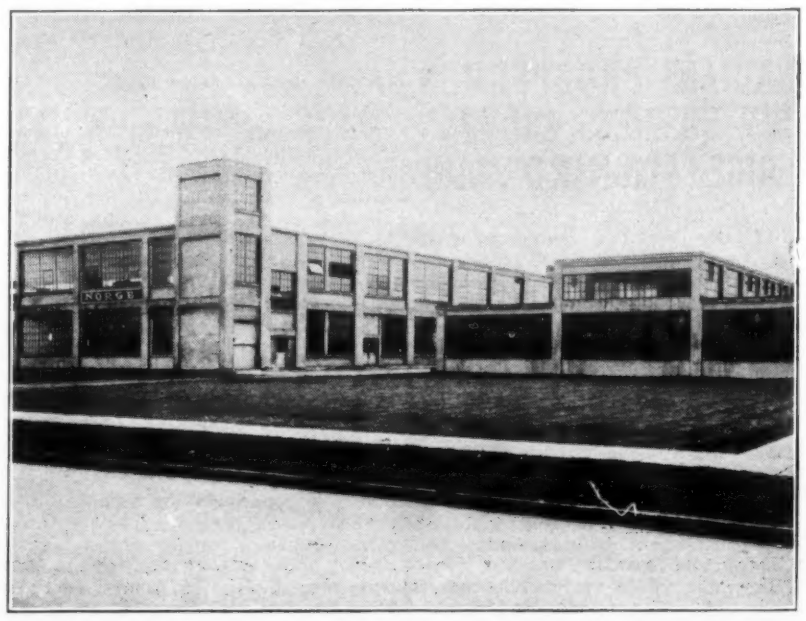
The only question then is as to the effectiveness of that standard talk, and the salesman's ability to adapt it to his needs as he comes in contact with chang-

(Concluded on Page 23, Column 3)

Keeping Salesmen on the Track

The standard sales presentation is based upon those arguments which have been found to be most result-getting, and is a track for the salesman to run on in making a selling talk. The "track" is presumed to lead always to the same place, namely, a completed sale. The selling talk is designed to put into the salesman's mind a thorough understanding of those arguments which are most likely to result in a sale, to give him something to say which will, if possible, forestall objections that will naturally arise in a prospect's mind.

Norge Corporation Acquires New Plant



Manufacturing operations of Norge Corp., Detroit, are being transferred to its new factory. (See story on page 1.)

UTILITY INCREASES AVERAGE CUSTOMER CONSUMPTION 4 KWH

Madison, Wis.—In the short space of three months, a refrigerator campaign added to the Wisconsin Power and Light Company lines 300,000 kilowatt hours per year and increased the average annual kilowatt hour consumption per residential customer by 4 kilowatt hours.

This means a gross revenue of $15,000 yearly, or $1,250 monthly on the current alone, outside of the income from refrigerator sales—an important consideration to a power company.

Until a year ago, the Wisconsin Power and Light Company was not seriously interested in the possibilities of electric refrigeration. The success of this campaign, however, has convinced the company executives that electric refrigerators are worth while handling, both from the load-building and merchandise revenue aspects.

To sell 570 General Electric Refrigerators in three months was the aim of the Wisconsin Power and Light Company campaign. They accomplished more than their quota by strenuous selling efforts and by a co-ordinated program of newspaper advertising and sales promotion. Every phase of the campaign was planned in detail and covered in a prospectus sent each of the five districts of the power company.

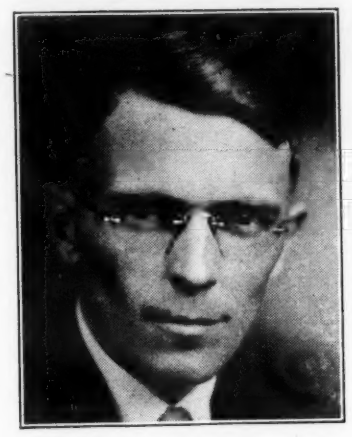
This "plan of action" explained that 21 million advertisements each month in national magazines carry the story of the General Electric refrigerator. In addition to this, the newspaper schedule apportioned to the districts specified 1,938 inches of space in newspapers with a combined circulation of approximately 500,000. Forty-eight billboards helped to remind and direct buyers to district stores.

Prizes to the amount of $1,500 were set up to be shared by salesmen, district managers and employees of the power company. Fifty per cent of this prize money was divided among the "big four" salesmen in percentages of 40, 30, 20 and 10. R. C. Burton, of the Lake Geneva district, carried off the first prize. J. R. McKenzie, of Fond du Lac, came in second, with D. S. Allen, also of Lake Geneva, a close third, and E. C. Schrameyer, of Sheboygan, following, a close fourth.

The remaining 50 per cent constituted division prize money, each division receiving a prize in direct proportion to the volume of sales. The grand prize winners were not eligible for division prizes. The divisions in the order of sales volume were as follows: Eastern, southern, central, Lake Geneva, and Beloit. The districts in these divisions who exceeded their goal and thus helped to reach and pass the quota are: Clintonville, Fond du Lac, Sheboygan, Janesville, Lake Geneva, De Forest and Ripon.

The ending of the campaign does not mean the ending of selling effort. The Wisconsin Power and Light Company is still going strong and on its way to reach a goal of 1,000 refrigerators to be sold before December 31, according to Mr. L. M. Williams, general commercial sales manager.

CENTRAL STATION SALES EXECUTIVE



L. M. Williams

STANDARD PRESENTATION GETS THE PROSPECT'S NAME ON DOTTED LINE

(Concluded from Page 22, Column 5)

ing selling conditions and prospects of widely different interests.

Information that is memorized is never forgotten. For example, we memorize our multiplication tables and our A-B-C's. Likewise, selling information and procedure, when memorized, is instantly available in proper form whenever needed.

Standard selling talks prevent salesmen from forgetting to cover important points. They give the salesman the courage and self-confidence that are necessary to create a favorable impression upon prospects.

Salesmen are always interested in stories they hear of successful men in their organization. Doubtless they wonder how those men have succeeded in making the records they have made. When salesmen are allowed to develop their own selling talk, no two men will be alike in their arguments. The difference in the success of salesmen is, of course, partly a matter of personality, energy, force, enthusiasm, and similar qualities possessed by the salesman. But the difference in selling success of salesmen is, to a considerable extent, due to the success with which they have organized and expressed their selling arguments. And all in the world that a standard sales presentation is, is a finished combination of the best selling arguments used by the most successful salesmen in the company—arguments that have been found to produce results over and over again, day in and day out—arguments, therefore, that stand a considerable chance of success if they are used by all salesmen in the organization.

And so, far from objecting to using a standard selling presentation, smart salesmen, whether salesmen of manufacturers or salesmen of dealers, will welcome such help, because they know that if they memorize the standard sales presentation that they will inevitably use more of the best selling arguments for their product in their talks; that they will forestall more of the prospect's objections; that they will be running on a "track" that leads inevitably to the desirable conclusion of a completed sale.

John H. Patterson the First to Use Standardized Sales Talk

Since the days when John H. Patterson, founder and head of the National Cash Register Company, developed the first standard sales presentation, to the present time when we find the leading specialty selling organizations in the country using this method as a means of increasing the results of their individual salesmen and the total company results, we have found salesmen objecting to learning the standard presentation of their company, only to realize after they did master the presentation and started in selling, that their results were better, they forgot fewer things in closing their business, and they were able to make more money under this method of selling, because they closed more sales.

FRIGIDAIRE GETS CONTRACT FROM U. S. NAVY

Dayton, Ohio.—Contract for $27,000 worth of electric refrigeration equipment has just been signed with the Frigidaire Corp. by the United States Navy.

The equipment is to be installed during the remaining months of 1929, and the first job is already under way on the U. S. S. *Texas*. The *Texas* is to have three electrically-cooled storage boxes.

A considerable number of units are being used by both the coast guard and the navy. The refrigerators are principally used in connection with the powder magazines on destroyers, to prevent deterioration of ammunition in tropical service.

The "Big Four" Salesmen in Wisconsin Campaign

(Above, left to right)—R. C. Burton, Lake Geneva, whose refrigerator sales amounted to $11,415.35; J. R. McKenzie, Fond du Lac, $8,867.25; (below, left to right) D. S. Allen, Lake Geneva, $8,366.15; E. C. Schrameyer, Sheboygan, $7,998.53. These men were the "big four" salesmen of the Wisconsin Power and Light Co., Madison, Wis., during its three-months sales campaign.

Gas Industry Plans to Follow Load-Building Methods of Electric Utilities

ELECTROLUX gas refrigerator booth at the annual convention of the American Gas Association held in Atlantic City, October 14-18. Visited by literally thousands of delegates, it was one of the busiest spots in the giant auditorium where the A. G. A. meetings were held. The full line of Electrolux models was displayed, including one new three-foot combination range and refrigerator especially designed for kitchens where space is a vital factor. District sales managers and others "on duty" at the booth during the show reported that enthusiasm ran high among delegate visitors as to what the gas refrigerator is meaning to the industry's domestic load factor.

EQUIPMENT ORDERS FOR NEW YORK INSTITUTIONS LET TO CARBONDALE CO.

Albany, N. Y.—Carbondale New York Company, 842 Ellicott Square, Buffalo, submitted low bids on proposals Nos. 1 and 2, respectively, of $5,544 and $4,620, for refrigeration work in the new Tuberculosis pavilion, St. Lawrence State Hospital, Ogdensburg, N. Y.

H. A. Foster, 323 State St., Ogdensburg, N. Y., submitted a low bid of $1,869.00 to the Commissioner of Mental Hygiene for the installation of refrigeration equipment in the reception building of the same hospital.

It is probable contracts will be awarded in a week or ten days.

Carbondale New York Co., Inc., 175 Christopher St., New York City, was recently awarded a contract on a low bid of $2,490 for refrigeration work to be done at the Psychiatric Reception Hospital, Willard State Hospital, Willard, N. Y.

Utica Gas & Electric Co., 258 Genesee St., Utica, N. Y., was recently awarded contracts on low bids of $5,825 and $4,825, under proposals No. 1 and No. 2, for refrigeration work to be done at the tuberculosis pavilion, Marcy division of the Utica State hospital, Marcy, New York.

KYLBERG HEADS NEW YORK DISTRIBUTING COMPANY

New York, N. Y.—K-W Corp., with offices in Hudson Terminal Building, 30 Church St., has been formed as a company to distribute oil burners and electric refrigerators in metropolitan New York and northern New Jersey. This territory includes a 50-mile circle around New York City.

V. C. Kylberg, formerly in charge of sales for Iroquois Electric Refrigeration Co., and later special representative of S. T. Johnson Co., is president and general manager of K-W Corp.

This company will wholesale a complete line of Silent Glow oil burners and will not participate in retail business except in the training of its retail dealers.

G. E. ORDERS GAIN 29% IN THIRD QUARTER

Schenectady, N. Y.—Orders received by the General Electric Company for the three months ended September 30th amounted to $116,688,014, compared with $90,328,666 for the corresponding quarter of 1928, an increase of 29 per cent, President Gerard has announced.

For the nine months ended September 30th orders received amounted to $337,404,470, compared with $260,686,463 for the first nine months of last year, also an increase of 29 per cent.

Boston Radio Concern Gets Copeland Franchise

Copeland has appointed Northwestern Radio, Inc., 269 Columbus Ave., Boston, distributors for the New England states, Maine, New Hampshire, Vermont, East Massachusetts and Rhode Island. This concern has been wholesale dealers in radio for the past seven years. A separate sales force will be organized to handle the Copeland line. There will be a large display of refrigerators on the ground floor of the building.

SELL 14,700 GAS UNITS IN NEW YORK

New York, N. Y.—The sale of 14,700 gas refrigerators during the first nine months of this year, three times as many as the number sold during the entire year of 1928, was announced by N. T. Sellman, director of sales and utilization of the Consolidated Gas Co. and subsidiaries, which serve the Boroughs of Manhattan and the Bronx, Westchester County, and a small section of Queens, New York.

SERVEL GIRLS ORGANIZE FOUR BOWLING TEAMS

Evansville, Ind.—Not to be outdone by the formation of a man's bowling league, the young ladies employed by Servel Sales, Inc., have started a similar organization which will be strictly their own.

Four teams consisting of five girls each have been arranged, rolling on a regular weekly schedule every Friday evening. Team names selected for the league are: Gingers, Peppers, Nutmegs and Paprikas. Ann Stiker, Loraine Kirkpatrick, Rose Carter and Marion O'Bryan have been chosen as team captains.

When the girls hit their mid-season stride they plan to challenge the men's league for a special match game.

HIGH RECORD FRIGIDAIRE SALESMEN HONORED AT PORTLAND

Portland, Ore.—About 100 Frigidaire dealers and salesmen attended the district sales meeting, Oct. 8, in the new Frigidaire building at 350 E. Burnside Street.

J. L. Conover, Dayton, Ohio, west coast manager, and George W. Shane, regional manager, addressed the group. W. W. Tyler, local branch manager, presided. Honors were given 14 salesmen holding the high sales records for the past three-quarters of the year.

CHICAGO UTILITY CLOSES SUCCESSFUL EXPOSITION

Chicago, Ill.—The two-weeks' electrical exposition held by the Commonwealth Edison Co., which ended on Sept. 28, attracted a large number of visitors. There were 39 booths, showing every modern electrical device.

One of the attractions was a Japanese tea garden, where Japanese girls in native costumes served tea or coffee, and toast, which were electrically made before the public. Directly across from this was the refrigeration section, where demonstrations were given on the making of frozen desserts, whcih were afterward served to the visitors.

IOWA UTILITY CO. OPENS MODEL KITCHEN

Ottumwa, Iowa.—Ottumwa Gas Co. recently opened a model kitchen in conjunction with its new home service department, containing an Electrolux unit and other gas appliances.

The new department will accommodate cooking schools and will also be used for demonstrations. Mrs. Beulah Hyten is the director of the home service department. T. C. Roderick is general manager of the company.

British Utilities Are Developing Market For Gas Machines

The gas companies in England constitute some of the best dealers of Electrolux, Ltd. This is the merchandising store of the Southampton Gas Company showing prominent window space given to gas refrigeration.

ELECTROLUX HOLDS CENTER STAGE AT GAS CONVENTION

Atlantic City, N. J.—Alexander Forward, manager director, American Gas Association, stated, in the opening session of the annual convention held in the Municipal Auditorium, Oct. 14-18, that the industry's outstanding achievement for the year has been the progress made in gas refrigeration.

H. W. Foulds, vice-president in charge of sales, Servel Sales, Inc., national distributors of the Electrolux unit, said: "I believe I have every right to say that this was a gas refrigerator convention of the A. G. A. Thus far in 1929, gas refrigerator sales have more than doubled themselves over all of last year. Throughout the country, utilities and other distributors are well in advance of their quotas. The interest shown among delegates to the American Gas Association convention gives us confidence that we may look for a 1930 business that will be several times the volume we have done this year."

At the Oct. 16 meeting of the commercial section, R. L. Hallock and E. J. Devlin, of the Brooklyn Union Gas Company, expressed the greatest enthusiasm for what the gas refrigerator is doing and what it means to the future of the industry.

Mr. Hallock stated that the advantages of the local advertising policy were becoming apparent. He said that starting in 1928 from nothing, with two powerful competitors in the field, the gas refrigerator in the territory served by his company had become a serious competitor for first place in sales. Similar situations were true, he added, in other territories where consistent local advertising was supported by a sound merchandising policy.

"We are coming to the fore," Mr. Hallock declared. "In 1926 there were only twenty gas refrigerators installed. They were virtually curiosities. Today gas refrigerators have been installed in homes and apartments in more than nine hundred cities throughout the United States alone."

Specialty salesmen for refrigeration work exclusively was urged by Mr. Hallock, who also said that the more successful operations gave their men monthly quotas, the maintenance of which was the condition of their continued employment. Hit and miss methods, he declared, did not make for volume.

FORECASTS INCREASED VOLUME IN 1930

H. W. Foulds

Miss Dorothy Dignam, who recently returned from Europe where she prepared a series of articles for Electric Refrigeration News, also spoke at the convention. She said:

"The interest abroad in American labor-savers is so great that Paris now has two enterprising 'kitchen coutores' who take your order for a complete American style kitchen just as a Paris dressmaker takes your order for a fall outfit. Any room in the French home or apartment will be converted into an American kitchen for a flat sum ranging from $120 to $1,000, which includes enameled range, tinted kitchen cabinet and other furniture, bright linoleum with matching cooking utensils, curtains, etc. French housewives are just as gleeful over the result as any of us would be over our first hat with a Paris label.

"Cooking equipment in the United States has changed on an average of once every twenty-five years, from the time of the open hearth to the present electric range, whereas in Europe kitchens have been improved only twice since the middle ages."

The following companies were among those which exhibited products at the Association convention: American Radiator Co., New York, N. Y.; Armstrong Cork & Insulation Co., Lancaster, Pa.; Bristol Co., Waterbury, Conn.; Celotex Co., Chicago, Ill.; Central Alloy Steel Corp., Massillon, Ohio; Cutler Hammer, Inc., Milwaukee, Wis.; Foxboro Co., Foxboro, Mass.; Johns-Manville, Inc., New York, N. Y.; Minwool Insulating Co. of N. E. Boston, Mass.; National Lead Co., New York, N. Y.; Porcelain Enamel & Mfg. Co., Baltimore, Md.; Roberts Brass Mfg. Co., Detroit, Mich.; Savory, Inc., Buffalo, N. Y.; Servel Sales, Inc., Evansville, Ind.; Sparklets, Inc., New York, N. Y.; Time-O-Stat Controls Co., Elkhardt, Ind.; Charles J. Webb & Co., Philadelphia, Pa.; and Welsbach Co., Gloucester, N. J.

Report Gains in Europe for Commercial Refrigeration

B. W. Dorr, European sales manager for Servel electric refrigerators, is now in the United States, as is also E. W. Ritz, manager for Germany. They are here to learn of new plans and developments for 1930 business. Both of them report a decided swing toward electric refrigeration in their areas, with a greater acceptance of commercial rather than residential installations.

A Combination of Contrasts—
Coal Company Sells Gas Refrigerators

During the Calgary Exhibition and Stampede, which is one of the outstanding yearly events of Canada, an attractive booth was created by the Wilson Coal and Coke Company, Ltd., featuring Electrolux gas refrigerators.

CAMPAIGN CONDUCTED BY STATEN ISLAND UTILITY

The special campaign featuring Electrolux refrigerators, conducted during the month of August by the New York and Richmond Gas Company, resulted in the sale of fifty-one Electrolux boxes.

In addition to cash prizes awarded to William Twine, A. J. Fitzgerald, C. E. Rogers and Edward Wanty, of the Sales Department, prizes were awarded to Tony Roto and Charles O'Brien, of the Shop Department, and H. Roch, A. Nichols and Frank Roch, of the Meter Readers' Department. The prizes awarded to Shop and Meter Reading Departments were based on the number of leads turned in by individual members of these non-selling departments, which ultimately resulted in sales.

SAMSON-UNITED ACQUIRES NEW PLANT IN ROCHESTER

Rochester, N. Y.—The Samson-United Corporation, which recently absorbed the business of the Samson Cutlery Company, has just purchased one of the largest plants in this city. The plant was formerly occupied by the Selden Truck Company.

The building is approximately one-quarter of a mile long, covering an area of about six and one-half acres, with a floor space of 200,000 square feet. The new plant will be equipped with the modern, labor-saving equipment for straight line production and will employ over 500 people. Samson-United manufactures electrical appliances and stainless steel cutlery.

GUESSING CONTEST INCITES INTEREST IN ELECTROLUX

Newport News, Va.—Newport News Furniture Co. recently used a guessing contest to advertise Electrolux refrigeration.

An Electrolux unit was placed in a display window and $85.00 was given to contestants submitting close guesses on the operating cost of the refrigerator.

Names of winners, together with official reports from the gas and water companies, were published in local papers.

OHIO FRIGIDAIRE MEN CONVENE AT CLEVELAND

Cleveland, Ohio.—A special sales convention of Frigidaire dealers and salesmen, under the distributorship of William F. Gray, was held here on October 5. A group of factory officials, headed by S. R. Prugh, regional sales manager, helped conduct the meeting held at the main sales offices, 1371 Euclid Ave.

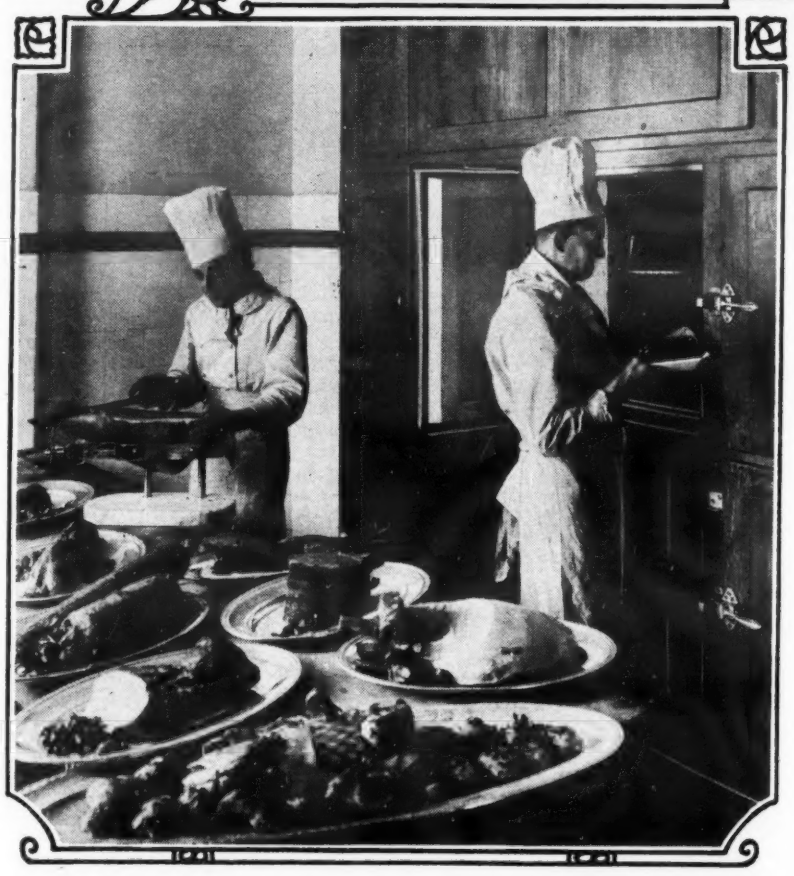
P. G. YOUNG AT LITTLE ROCK

Little Rock, Ark.—P. G. Young, a veteran refrigeration man, formerly of St. Louis, Mo., has joined the organization of 555, Incorporated, as manager of the Servel division, which operates throughout the state of Arkansas and as retailers in Greater Little Rock.

American Guests In French Hotels Create Demand For Refrigerated Food and Drink

Two-terrace court showing the first level or Marble court, surrounded by reception rooms. The upper court is attractively planted with flowers.

Large wine cooler, located in the cellar, which is designed to refrigerate several hundred bottles of sparkling French beverages.



Frigidaire equipped "garde manger" or food safe, where cooked meats and other perishable foods are stored. Two other refrigerators are used to keep the relishes, mixed salads, fruits and salad greens.

FRIGIDAIRE SERVES NEW MILLIONAIRE HOTEL, PARIS, FRANCE

Every Floor Equipped with Electric Refrigeration

By Dorothy Dignam
European Correspondent

THE magnificent new George V. Hotel, in the fashionable Champs-Elysées district, just a few blocks from the American Embassy, is the center of hotel interest in Paris today.

Not only is it the newest of the de luxe hotels, where all rooms are arranged en suite—a private salon with each bedroom and bath—but the decorations have attracted the artistic world of Europe. They are said to be the best example in Paris of the "modernistic," refined and enriched by some of the earlier French periods.

The architecture of the hotel is striking. Built around three sides of a square, the court thus formed is on two levels, or terraces. One level is called the Marble Court and is surrounded by the magnificent reception rooms of the hotel. The second level is laid out and planted like a garden, with fresh flowers the year round. Suites of rooms open out into this in the manner of small individual homes.

Even the superbly equipped all-tile kitchens are of surpassing interest, and the Paris branch of Frigidaire Limited had the good fortune to plan the entire refrigeration installation while the building was in course of erection. There was no old equipment to convert. Even the cold room or meat storage chamber was designed and erected solely for electric refrigeration.

Besides the cold chamber, there are five cabinets each complete with compressor, for the storing of food, and eight smaller cabinets for floor service, operated by compressor in the basement. Thus every floor in the hotel is equipped with electric refrigeration.

Beginning with the cellar, you find the Frigidaire special wine cooler, which will accommodate several hundred bottles. On the floor above is the electric version of the French "garde-manger," or food-safe, which is used for storing cooked meats and other foods which are served from meal to meal. There is another "garde-manger" for hors-d'oeuvre—the relishes and mixed salads that form the first course at the French luncheon. Also a third electric refrigerator for fruit and salad greens.

In the coffee-serving pantry, a smaller unit preserves the milk and cream and butter and this completes the kitchen installations, all of which have separate compressors.

In French hotels there is usually a small serving pantry, called the "office," on each floor. This is especially necessary on the Continent, since all breakfasts are served in the bedrooms, and fresh butter and milk are required, also cream, in the better hotels, which have frequent American guests. Fruit is usually demanded, too, by the Americans, and drinks, of course, at all hours of day. So refrigeration in these small floor pantries is more necessary in Europe than in our own country. The George V. has a Frigidaire on each floor, all hooked on to the basement compressor.

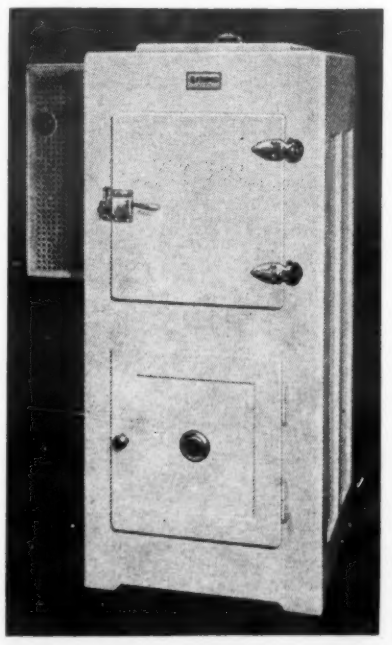
Hotel installations form some of the best refrigeration business in France today, especially in Paris and along the Riviera, where American guests demand so much in the way of luxurious living.

Apartment house installations are also growing in number. Frigidaire Limited reports a single order amounting to $28,000 in the Nice-Monte Carlo district. Société Anonyme Electro-Lux reports 110 units ordered for a new Paris apartment house. The Kelvinator representative says that apartment house installations are the most promising development in the refrigeration field in France.

Kelvinator is working with architects now on more than a hundred plans for quantity installations. One of these is said to be a large corporation undertaking, which will erect fifteen new apartment buildings in Paris, requiring a total of three hundred electric refrigerators.

In big housing schemes such as this, remote installation is preferred, because of the lower cost, but as a rule the new apartments now going up in Paris are all of the de luxe type and the added cost of separate compressors for each kitchen has not been a deterrent in closing sales.

GERMAN NON-AUTOMATIC GAS-OPERATED UNIT SELLS FOR $87.50



Eskimo gas-operated unit made in Dusseldorf, Germany, selected for campaign by Munich Utility Company.

MUNICH GAS PLANT PUSHES ABSORPTION TYPE REFRIGERATOR

THE gas plant at Munich, capitol city of Bavaria, like most of those in Germany, is municipally operated. But the board in charge has proven unusually alert in promoting the use of gas through domestic appliances.

The gasworks also owns and occupies a large general office building, where the ground floor is devoted to merchandise displays and the second floor to home service activities. The active head of the business and promotional department is an American trained executive.

The name of the machine is the Eskimo, and it is manufactured in Dusseldorf. The low initial cost ($87.50) will make it much easier to introduce domestic refrigeration into this territory. Commercial installations so far have been more important. Electrolux is the leading competitor in the gas refrigeration field.

The Eskimo is considered to embody "automatisher" refrigeration, but this $87.50 model, of course, is not automatic as we understand the word. It is an absorption type machine with water connection, the boiler treated by indirect heat for greater safety. It requires to be operated for about 45 minutes a day and then maintains a temperature of between 40 and 50 degrees Fahrenheit for twenty-four hours. Gas consumption is said to be a little more than 10 cubic feet a day.

The cabinet is of limited capacity, but has a well arranged food compartment. It is corkboard insulated, white enamel finished and has nickeled hardware.

The Munich plan of conducting a sales campaign is first of all educational. And quite necessarily! Their purpose is to make it convenient for as many persons as possible to see the refrigerator in operation. Waiting for them to visit the salesroom is too slow—and this narrows down your prospects to the few who are actually thinking about purchasing a refrigerator. Most of the families in Munich are not thinking about it at all. So the appliance is taken direct to the people, where their curiosity is a big selling help. A series of exhibits is held in public halls adjoining the popular cafes.

During the last campaign on gas heating, for instance, twelve halls were engaged for a week each, and during the peak of the drive, demonstrations were given in several halls simultaneously. These public rooms adjoining the best cafes are intended for meetings of various kinds, but are ideal for exhibition purposes because the doors into the cafe can be swung open, allowing visitors to pass freely in and out. Which is exactly what they do, and it must be remembered that in Germany mein frau frequently accompanies her husband for afternoon coffee, which is taken after business hours, perhaps, as late as supper in a small town. So this is a little occasion for them, and an ideal moment to interest them together in something for the home.

Cooperative Campaign in Germany

ICE ASSOCIATION TO LOAN 100,000 BOXES TO HOMES IN BERLIN

2500 Placed in Preliminary Effort Last Year

By Dorothy Dignam
European Correspondent

A TREMENDOUS movement to increase the use of ice in Greater Berlin is revealed in the consolidation of all the district ice manufacturers into one association, and the inauguration of a plan to supply the 180 local dealers with 100,000 refrigerators which they, in turn, can "loan out" to new ice customers.

The coming of domestic electric refrigeration to Germany and especially the concurrent use of modern merchandising methods has aroused such discussion on the subject of food preservation that the demand for all kinds of refrigerators has been greatly stimulated.

The electric market is benefiting by the awakened interest in food care, and the ice manufacturers and delivery dealers are exhibiting an enterprise in business unequaled anywhere else in Europe at the present time.

A start was made last season by the ice manufacturers of Berlin, when they adopted the Rohrbeck "cooling box," designed by Wilhelm Rohrbeck of Rienickenworf, a suburb of Berlin. Herr Rohrbeck is the owner of one of the nine big ice plants that make up the new association.

About 2,500 of the Rohrbeck cabinets were placed in Berlin homes last season, but this is, of course, a mere beginning, as there are an estimated one million homes in Greater Berlin that do not take ice even in summertime. It is the present plan to place Rohrbeck cabinets in at least 10 per cent of these homes, realizing 100,000 new ice customers.

The ice manufacturers, through their association, have organized the 180 retail ice delivery firms in Berlin and supplied them with literature to interest the housewife in taking ice. A cabinet is placed in her kitchen free of charge on the signing of a contract to take at least 75 cents worth of ice each week for a period of four months in the summer. Delivery of cabinet is made from the stock of the ice manufacturers' association, but the retailer must keep track of the cabinets on loan and pay the association 75 cents a month on each as an amortization fee.

When the customer's contract expires and she cannot be persuaded to renew, the cabinet is removed and returned to the ice plant. The tendency, however, will be to retain the cabinet after the expiration of the summer contract and take a reduced quantity of ice through the fall and winter season.

If customers wish to purchase the cabinet outright, the prices are $15 to $24, according to finish, and a discount is given when a cabinet is purchased out of season—that is, any time other than the four summer months.

The Rohrbeck "cooling box" is quite ingenious and looks more like an electric washer—or even a fireless cooker—than a refrigerator. It is only waist high (about 80 centimeters), constructed of metal with cork insulation and zinc lining. The top lid is of wood and inside the space is divided into three compartments by means of two removable zinc baskets.

One of these baskets holds the ice, the melting water from which is allowed to drop down into the lower part of the basket where beverage bottles may be placed to cool in the ice water. This is not recommended for milk bottles, of course, but it must be remembered that we are discussing Germany, where other bottles are much more important!

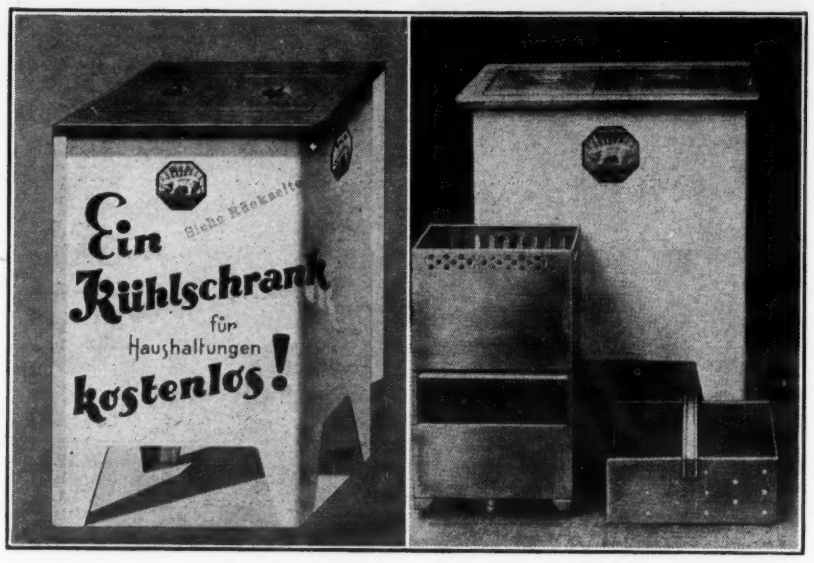
There is a food compartment on the bottom of the cabinet, and the second zinc basket forms a shelf just above, on which butter and other delicate foods may be brought into close contact with the ice.

An air circulation is maintained much as in a side-icing refrigerator, since the ice is actually to one side and not across the entire top of the cabinet. Instead of emptying a drip pan, the entire ice basket may be lifted out and the water poured off when the new supply of ice is put in. It requires about eight pounds of ice per day to keep the "cooling box" really cool.

While the Rohrbeck invention can never be considered a substitute for a full-sized ice or electric refrigerator, it shows the sort of development that may be expected from the European market, and preparatory work of this kind on the part of the ice industry is the best possible foundation for future growth of mechanical refrigeration.

Even today the electrical industry is finding its task in Germany greatly simplified because the better homes in the cities are already educated to the use of refrigeration. The more homes in which "ice boxes" can be placed today, the greater will be the field for the sale of mechanical units tomorrow.

The Rohrbeck "Cooling Box"



The Rohrbeck "cooling box" and the zinc baskets which fit inside it. The ice-block is placed in the upper part of the larger basket while the lower part receives the melting ice water and acts as a bottle cooler. The wholesale cost to the ice plant is about $13 each.

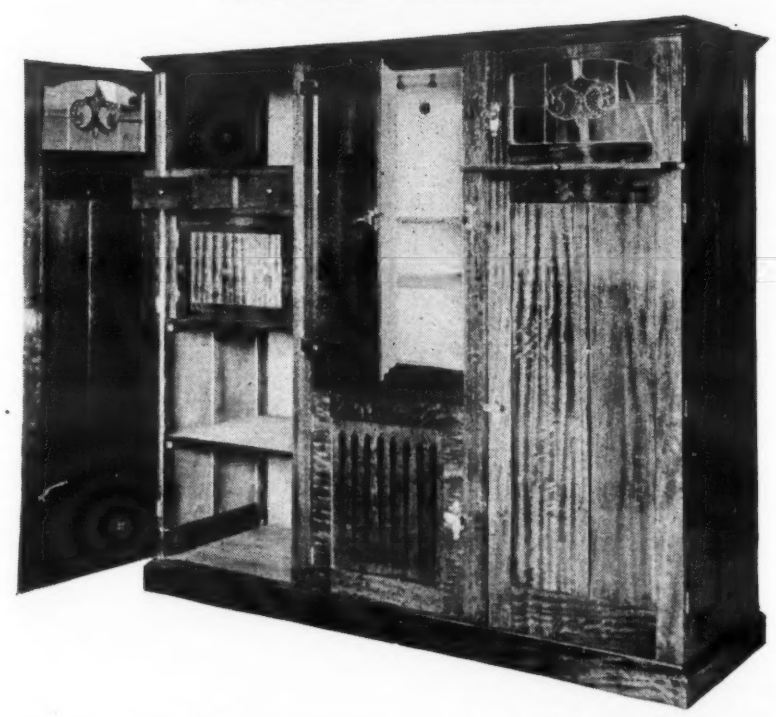
The folder is part of the literature used by the retail ice companies to sign up new customers. 200,000 of these were distributed in Berlin last season as the opening gun of the campaign.

HAVANA DISTRIBUTORS VISITING SERVEL CO.

Evansville, Ind.—Basil Hone and Jose Miguel Padrone, members of the firm of Hone and Padrone, refrigeration engineers of Havana, Cuba, are visitors at Servel Sales, Inc., during this month.

Hone and Padrone have been actively identified in the successful introduction of Servel electric refrigeration throughout Cuba, working in conjunction with Luis L. Aguirre, Havana distributors, establishing new dealers and retail outlets.

A Fancy Combination Cabinet in Office of Australian Executive



A novel cabinet which ornaments the office of O. P. Sellers, Managing Director of Cooling Systems Limited, Sydney, Australia. It is a refrigerated office loughboy bookcase, and provision is made for cigar and liquor storage, plus serving shelf, the right hand door closing out of view accommodation for overcoat, hat hanging arrangements.

There is an N-5 Copeland installed in the unit compartment, which is Celotex lined, and the cooling tank is also the standard N-5. The cabinet is finished in Queensland maple, well figured.

INSTITUTE STUDENTS IN 12 COUNTRIES TAKING REFRIGERATION TRAINING

Utilities Engineering Institute, 4403 Sheridan Road, Chicago, announces a large foreign patronage of its home study electric refrigeration training service.

According to E. P. Sorensen, president of this institution, U. E. I. students are located in twelve foreign countries as well as in 41 of the 48 states.

There are three ways in which the Utilities Engineering Institute is of service to the electric refrigeration industry in connection with foreign activities. 1. Training of foreign factory representatives. 2. Training of the sales and service staffs of foreign dealers and distributors. 3. Securing trained men in foreign countries either as sales or service representatives for domestic manufacturers, or, helping foreign dealers and distributors to secure trained men in their territory.

To the manufacturers who are not equipped to conveniently train their foreign representatives and the sales and service staffs of their foreign distributors, this home study training provides a means of solving this problem and several of the larger firms make a special effort to induce enrollments from among their foreign sales outlets.

The free placement service which the institute extends to its graduates also provides manufacturers and distributors with a way of securing thoroughly trained English-speaking men anywhere in the world.

STATEMENT OF THE OWNERSHIP, MANAGEMENT, CIRCULATION, ETC., REQUIRED BY THE ACT OF CONGRESS OF AUGUST 24, 1912,

of ELECTRIC REFRIGERATION NEWS, published every two weeks at DETROIT, MICHIGAN, for October 1st, 1929.

STATE OF MICHIGAN,
COUNTY OF WAYNE,
ss.

Before me, a Notary Public, in and for the State and county aforesaid, personally appeared Geo. N. Congdon, who, having been duly sworn according to law, deposes and says that he is the Business Manager of the ELECTRIC REFRIGERATION NEWS and that the following is, to the best of his knowledge and belief, a true statement of the ownership, management (and if a daily paper, the circulation), etc., of the aforesaid publication for the date shown in the above caption, required by the Act of August 24, 1912, embodied in section 411, Postal Laws and Regulations, printed on the reverse of this form, to wit:

1. That the names and addresses of the publisher, editor, managing editor, and business managers are:

Publisher, F. M. Cockrell, 18090 Wildemere Ave., Detroit, Mich.

Editor, F. M. Cockrell, 18090 Wildemere Ave., Detroit, Mich.

Managing Editor, John Drittler, 4871 Edmonton Ave., Detroit, Mich.

Business Manager, Geo. N. Congdon, 429 Ardmore, Ferndale, Mich.

2. That the owner is: (If owned by a corporation, its name and address must be stated and also immediately thereunder the names and addresses of stockholders owning or holding one per cent or more of total amount of stock. If not owned by a corporation, the names and addresses of the individual owners must be given. If owned by a firm, company, or other unincorporated concern, its name and address, as well as those of each individual member, must be given.)

Business News Publishing Co., 550 Maccabees Bldg., Detroit, Mich.

F. M. Cockrell, 18090 Wildemere Ave., Detroit, Mich.

H. A. DeLashmutt, Castle Hills Apts., Philadelphia, Penna.

3. That the known bondholders, mortgagees, and other security holders owning or holding 1 per cent or more of total amount of bonds, mortgages, or other securities are: (If there are none, so state.)

None.

4. That the two paragraphs next above, giving the names of the owners, stockholders, and security holders, if any, contain not only the list of stockholders and security holders as they appear upon the books of the company but also, in cases where the stockholder or security holder appears upon the books of the company as trustee or in any other fiduciary relation, the name of the person or corporation for whom such trustee is acting, is given; also that the said two paragraphs contain statements embracing affiant's full knowledge and belief as to the circumstances and conditions under which stockholders and security holders who do not appear upon the books of the company as trustees, hold stock and securities in a capacity other than that of a bona fide owner; and this affiant has no reason to believe that any other person, association, or corporation has any interest direct or indirect in the said stock, bonds, or other securities than as so stated by him.

5. That the average number of copies of each issue of this publication sold or distributed, through the mails or otherwise, to paid subscribers during the six months preceding the date shown above is. (This information is required from daily publications only.)

GEORGE N. CONGDON.
(Signature of editor, publisher, business manager, or owner.)

Sworn to and subscribed before me this 24th day of September, 1929.

ANNA SACHS.

SEAL.

(My commission expires August 27, 1930.)

PURE FOOD LAWS INCREASE DEMAND IN GREAT BRITAIN

By Ralph S. Charles, Assistant Trade Commissioner, U. S. Dept. of Commerce, London, England

GREAT Britain offers a huge field, at present practically untouched, for the development of both ice and electric refrigeration to a public who are beginning to appreciate the value of pure food and who are only now coming to use refrigeration at all extensively. The sale of automatic refrigerators, both for commercial and domestic purposes, is increasing and there appear to be great possibilities in the future.

The people in general have never been accustomed to refrigeration of any kind such as in the case in America. As the present time, most of the middle class homes in Great Britain are equipped with a larder on the north side of the house, which has no cooling apparatus other than slabs for shelves and a small vent. During the very hot days, the temperature in the larder is usually reduced with a threepenny piece of artificial ice in a pail, covered with a jute mat. Those people who can afford to purchase ice find it necessary to make arrangements in advance with the fishmongers who buy it primarily for their own use and sell only their surplus. If delivery can be secured at all, it is generally in the late afternoon and more often than not the purchaser carries it home himself.

The present domestic method of handling food products and the present diet in Great Britain are clearly the result of conditions and circumstances which prevailed before modern refrigeration was discovered and adapted to domestic use. The diet of the country is largely designed to do without refrigeration and the universal custom of boiling foods is unquestionably traceable to the desire to preserve them, in part at least, for further use. The consumption of meats, fresh fruits and vegetables has been partly limited by the fact that they could not be kept for any length of time. In very hot weather the typical British family reduces its purchases of perishable foodstuffs to daily requirements.

Although it has been claimed that there is less need for refrigeration in Great Britain owing to the cooler climate, it is believed that the real cause of the failure to adopt and utilize modern refrigeration equipment in the United Kingdom is directly traceable to the inherent aversion of the British people to change. An Englishmen takes a long while to make up his mind to accept new ideas, but when he does, he usually becomes an enthusiast.

There is a certain amount of prejudice against refrigeration, but the fact that a very large proportion of the food consumed in Great Britain is imported and that a great percentage of this is brought to Great Britain by means of refrigeration, shows that the prejudice cannot be very strong, though there are a certain number of people, who—through ignorance—look with disfavor upon any food which has been preserved by any process whatever, whether chemical or refrigeration.

At the present time in certain congested areas of London, particularly in the fashionable apartment and residential districts, there are a few ice supply companies making regular deliveries from door to door with horse drawn vans. These companies usually do not produce ice, but buy it from large manufacturing concerns who supply the commercial trade and who consider such a retail scheme as an outlet for their surplus.

During hot weather, there is always a greatly increased demand for ice and the question of refrigeration in the home receives more attention. The number of householders, however, who take a supply of ice during the winter months is very small. One reason for this is that in the average British home, which is constituted of brick or stone, each room has its own open-grate fireplace and the temperature in the halls, entries, and larders, etc., where food might be stored, is practically equal to the outside. Central heating as is known in the United States is very little used in Great Britain.

British May Not Go Through "Ice Box" Stage of Refrigeration.

There is one important factor of the general situation, concerning which opinion seems to be divided. On the one hand, there are those who feel that if the prices of the domestic electric refrigerators can be reduced the general public will not go through the "ice box" stage as was the case in the United States, but will take up electric refrigeration direct. On the other hand, there are those who believe that the general public will advance to electric refrigeration through the use of ice.

The refrigeration field, which is already well occupied by British concerns and a few large American concerns, is a highly competitive one. Even assuming the presence of special advantages, in the way of construction, price, cost of operation or any other features, the American manufacturer who desires to gain a good foothold in the British market and who expects his sales to amount to anything, must be prepared to invest considerable capital and to apply well directed energy towards creating a demand for his product during the introductory period.

So far the greatest development in the sale of small refrigeration plants has been with the commercial user, such as the butcher, who finds it an absolute necessity. The Government is constantly investigating to ascertain if all purveyors of food are complying with the Pure Food Laws, with the result that small retailers are practically compelled to adopt some form of refrigeration, which is usually of the automatic electric type. In general the public undoubtedly is careful to purchase food from retailers who have adequate means of refrigeration. Proof of this can be found in the fact that a large number of retailers display the sign of one of the well known American electric refrigerator manufacturers.

Poor Law Reforms Will Make Market in Institutions.

It is believed that there is also a market for a medium size electric refrigerator suitable for use by Public Institutions. When the Poor Law Reforms become effective on and after March 3, 1930, there will undoubtedly be a general re-organization of the public hospitals, homes, institutions, etc., which are under the supervision of the Ministry of Health, and it is very likely that such buildings will be equipped with electric refrigerating units to keep food supplies fresh as well as to supply ice for medical purposes.

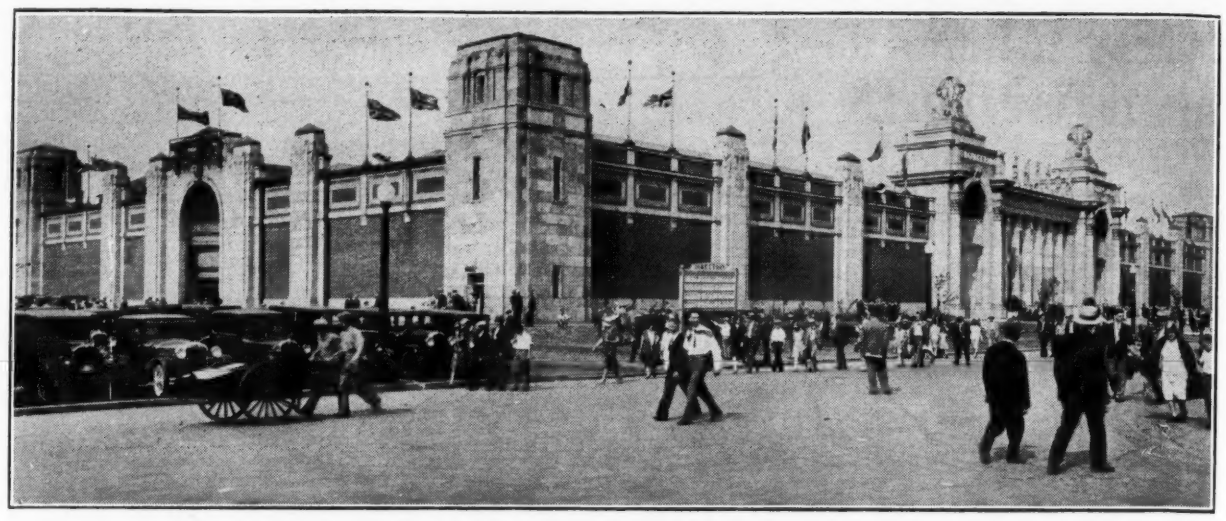
The comparatively high cost of domestic automatic units has had a tendency to influence the public to take advantage of "hire purchase" or installment plan and it is believed that most of this type of equipment will in the course of time be acquired in this manner. Quite a few finance companies have been formed in Great Britain recently to facilitate this kind of business.

On the other hand, in certain parts of the country, especially in Scotland, there seems to be an antipathy against "hire purchase," particularly with the class of people who should have electric refrigerators. This reluctance is breaking down, however, and the experience of the motor trade a few years ago will undoubtedly be repeated.

The fact that the Government is building large generating stations at central points throughout the Country which will eventually mean cheaper electrical current is another element in favor of electric refrigeration. The Central Electricity Board, which has been set up to re-organize the electricity supply by districts, is part of a National Grid System to standardize the supply. Standardization will be on a basis of a three phase 50 cycle system, and the electricity commission recommend that 230 and 460 volts direct current and 230 and 400 volts alternating current be used as the standards for supplying pressure to the consumer.

In this connection it is interesting to note, that assuming the total population of Great Britain to be approximately 45,000,000 people, and the average home to consist of five persons, the total number of homes would be 9,000,000 of which only 2,500,000 are wired for electricity as compared with 19,000,000 homes in the United States.

Center of Electric Refrigeration Interest During Canadian National Exhibition



Electrical and Engineering Building, Toronto, where large displays of electric refrigerators were shown with other appliances during the Canadian National Exhibition.

DeLuxe Domestic Models Attract Exhibition Visitors

Leslie & Allchin, Copeland distributors in Toronto, Ont., and several counties east of York county, exhibited a number of Copeland refrigerators at the Canadian National Exhibition held recently at Toronto.

CANADIAN DISTRIBUTOR SHOWS TALKING REFRIGERATOR

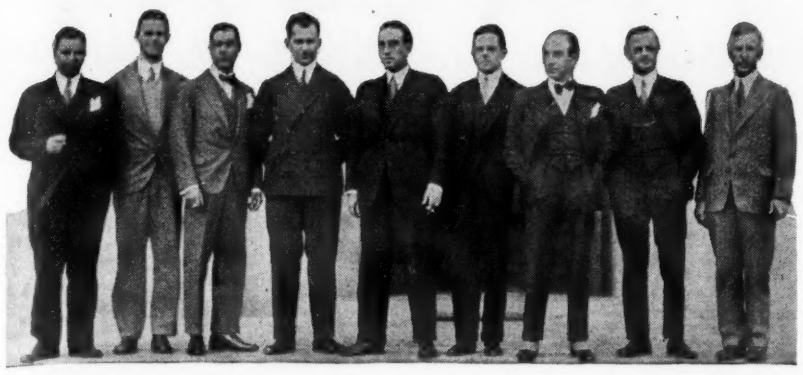
Victoria, B. C.—B. C. Electric Railway Co., General Electric distributor, exhibited a "talking" domestic model refrigerator at the Victoria Exhibition.

A loud speaker was concealed in the refrigerator and connected to a room above the display booth. When a sufficient crowd of onlookers collected in front of the booth, a buzzer warned the salesman in the room above "to do his stuff." Then the machine would start "talking," giving an outline of the development of the G. E. unit.

Importance of Electric Refrigeration in Home Stressed by Builders

Electric refrigeration received the attention of many prospective home owners at the Builders' Exhibition, Hotel Windsor, Montreal, Canada. Copeland refrigerators were shown by C. P. Fabien Refrigerator Co., Ltd., of Montreal.

Kelvinator Men Plan Expansion of Continental Business



Left to right—E. H. Wilcox, asst. manager, Export Dept., Kelvinator Corp., Detroit; M. P. Godquin, field engineer, Detroit; Ralph Searle, Kelvinator, Ltd., London, England; Eng. Rudolph Geller, chief engineer, Kelvinator, Elektro-Kuhlanlagen A. G., Leipzig, Germany; Eng. Roberto Parrilli, European service manager, Kelvinator Corp., Zurich, Switzerland; Reginald Gorham, Export Dept., Detroit; Baron Luigi Parrilli, Kelvinator European manager, Kelvinator Corp., Zurich, Switzerland; B. H. Morash, manager, Kelvinator, Ltd., London, England; and R. O. Lundquist, manager, Export Division, Detroit.

EUROPEAN DIRECTOR

Favorable reports of business prospects in the Scandinavian countries are reported by Werner Schoop, European director for the H. M. Robins Co., export agents for Copeland. Mr. Schoop maintains headquarters in Zürich.

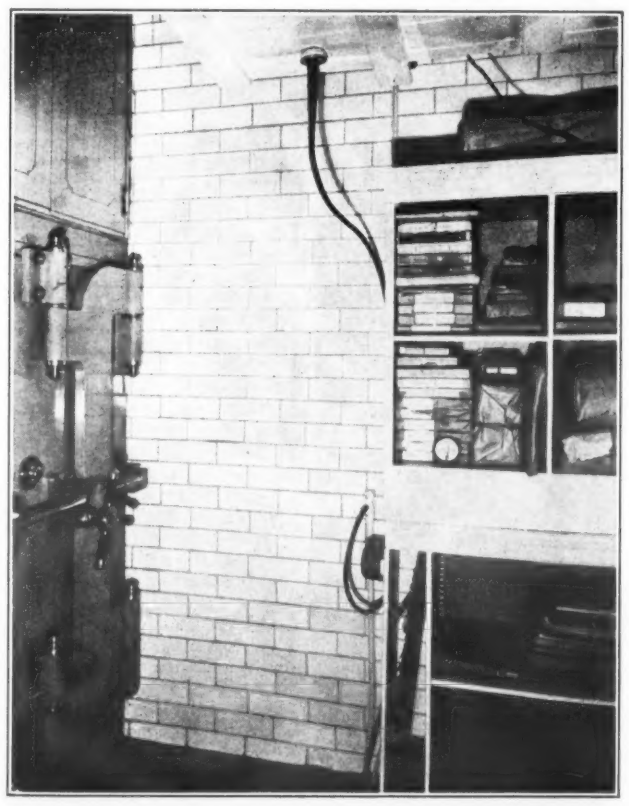
EXPLORER'S ARCTIC HOME KEPT INTACT 275 YEARS

IT is well known scientifically that cold will preserve animal flesh for centuries. Creatures belonging to now extinct species have been cut out of glaciers intact as to flesh and bones. This has happened frequently in Alaska, Siberia and elsewhere. Now comes proof that cold will also arrest the disintegration of material objects—even furniture, musical instruments, etc. A striking instance of this is revealed in Llewelyn Powys' biography of Henry Hudson. Long before the explorer of the Hudson River had ever dreamed of sailing up the shoreline of the present Riverside Drive, he was looking for the Northwest Passage to India in an entirely different direction. In fact, he was trying to sail north over the top of the world at the Pole and come down the other side! Starting out from England, Hudson first cruised around in Northern waters that had previously been chartered by Barents, one of the earliest arctic explorers. Barents disappeared in 1594 and rescue parties failed to find any trace of him.

Finally, two years after, the last rescue party itself was lost on an island, and we read this startling portrayal of the discovery of their last camp:

"In such a place, where the atmosphere paralyzes the forces of decay, where ice and snow enfold all in a still and magic wrapping, the waste of material objects is completely arrested. Two hundred and seventy-five years later, on September 13th, 1871, a Norwegian captain, Elling Carlsen, of Hammerfest, discovered the house intact, encinctured with ice. The fireplace was there, the tankards with lids of zinc, the cooking pans of copper, the books, the six-holed German flute—just as they had been left by the men who had gone back for the last time to fetch Barents."

Electric Cooling Protects Church Documents From Deterioration



Interior of record vault in Christian Science Church

ELECTRIC refrigeration has entered and been adapted to a new field, one where employment of its properties long has been desired—the preservation of valable documents in refrigerated archives.

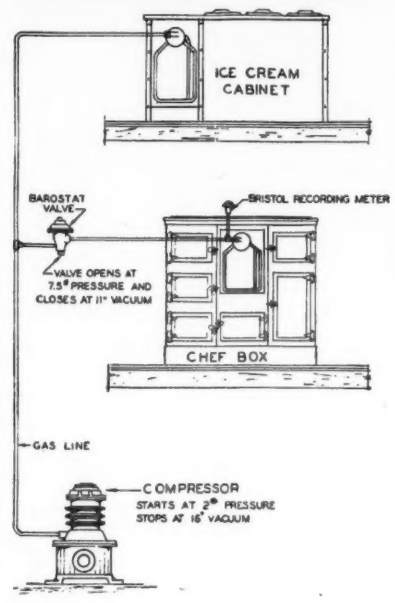
What is said to be the first installation for this purpose is one recently completed in the Christian Science Church, Boston, Mass., under the direction of Beaudette & Graham, New England distributors for Copeland. The refrigeration has been placed in the church's vault, where it will maintain the low temperature necessary to protect important and valuable documents from deterioration. Among these are the original manuscripts of the writings of Mary Baker Eddy, founder of the Christian Science Church.

A Copeland Model R type condensing unit and three four-foot Copeland zero tubes were used. The tubes are suspended from the ceiling of the vault. Temperature control is direct.

Some months ago it was discovered that the famous Eddy papers were showing signs of rapid deterioration. Library and museum experts and engineers were called in. Their survey revealed that temperatures in the vault were too high and that one not exceeding 65 degrees must be maintained to halt the damage. They recommended refrigerating equipment to eliminate destructive temperatures.

Oddly enough the refrigerating equipment will be called upon to function largely in winter time, when the church's heating plant is in operation and when temperatures in the vault formerly ran as high as 80 degrees. Summer time temperature of the vault is sufficiently low to preserve the records.

CONTROL VALVE PERMITS COMBINATION HOOK-UP



The Barostat valve, manufactured by Barostat Co., 19 Pearl St., Boston, Mass., regulates pressure for automatic two-temperature control in electric refrigeration, completely isolating its cooling unit from the balance of the system. Combinations, such as a soda fountain and an ice cream cabinet, or a meat box and a water cooler, can be operated with a single compressor and a Barostat valve. This valve has snap action, low pressure drop, positive seal and consistent operation.

TEXAS DEALER MAKES SPEEDY INSTALLATION

Amarillo, Tex.—one of the best claims for speed in Electrolux installation was recently established by the Panhandle Gas Refrigerator Co., according to A. Thrasher, Electrolux district sales manager. The job called for 25 Electrolux units to be placed in the Lucerne Apartments and prompt service was specified as part of the contract.

The refrigerators were unloaded at the depot at 8:30 o'clock in the morning, delivered, uncrated, and photographed in front of the apartment. Every unit was installed and freezing ice by six o'clock that same evening, with the complete departure of the service crew. Next morning when a check was made, each refrigerator was functioning properly.

WILLIAMS EXPORT HEAD NOW IN EUROPE

Bloomington, Ill.—A. T. Simmons, manager of the export department of Williams Oil-O-Matic Heating Corp., is now making his annual tour of European Williams outlets. Mr. Simmons' trip includes visits to dealers and distributors in England, Holland, Belgium Germany, Spain and other foreign countries.

N. Y. STATE SEEKS BIDS FOR REFRIGERATION WORK

Albany, N. Y.—Bids will be opened by Commissioner of Mental Hygiene, November 13, for refrigeration work in new bakery at the Brooklyn State Hospital.

Bids will also be opened, Nov. 7, for refrigeration work, male animal unit, Guilderland, and on Nov. 20, for refrigeration work, reception building, Buffalo State Hospital.

UNIVERSAL COOLER OFFICIAL VISITS EASTERN OUTLETS

Detroit, Mich.—Gorton F. Price, manager of distribution for Universal Cooler Corp., is now on an extended eastern trip contacting eastern distributors. Mr. Price reports increased sales in eastern territory and a good outlook for fall and winter sales.

NEW JERSEY G. E. DEALER TO OPEN SHOWROOM

Trenton, N. J.—G. A. Barlow's Sons, General Electric dealers, will soon open a new show room on the Lincoln Highway, corner of State and Warren Sts. Henry Siegrist will manage the new store.

Servel's Safety Multiple System Dedicated to the Industry

HIGH-PRESSURE LINE ENCLOSED WITHIN LOW-PRESSURE LINE

Branch Box Covers Are Sealed with a Gasket

Evansville, Ind.—Several minor changes have been made in the Servel multiple system, use of which was offered to the industry by Colonel Frank E. Smith, president of Servel, Inc., in a letter published in the July 17 issue of the *News*. These changes, which meet the requirements of the proposed Chicago codes, provide that the various junction and branch boxes must be made round instead of rectangular to permit of a tongue and groove gasket for the covers.

This patent, No. 1,724,233, covers a piping system for multiple system installations, wherein the liquid or high pressure line is completely enclosed within the low pressure line. The outer or low pressure line is made of rugged construction, and should a leak occur in the high pressure line, the leakage will be into the low pressure line, which is connected to the suction side of the compressor.

The lower box in the photograph is called the "basement box." It has a single packless shut-off valve in the suction line (shown at the bottom of the box). It also has a single high pressure valve of the packless type (shown at the left of box).

Directly above this box in the photograph is shown two junction boxes. These boxes contain no shut-off valves. This purpose is merely for making connections.

Packless Shut-Off Valves in Each Apartment

The upper box as illustrated in the photograph is called the "branch junction box" and is used for the purpose of making the connection to the cabinet. This box has two packless shut-off valves, one for the suction side and the other to the high pressure side of the system. These valves are set at an angle to provide sufficient hand room to operate the valves conveniently. This box will be located not more than six (6) feet from the refrigerator and in such a position that it can be easily reached and readily operated.

Tubing connections between the "branch junction box" and the refrigerator itself are to be covered with metal conduit and a shield, as shown in the photograph, for protection against mechanical injury.

It is possible to shut off the entire system by the two valves attached to the "basement box" and at the same time shut off any individual refrigerator by closing the two valves at the "branch junction box."

Space has been provided on the covers of junction boxes for the placing of instruction plates, giving directions as to how to shut off the system.

The liquid line is made of copper tubing and is enclosed in a rigid pipe which acts as the return or gas line. Places where the pipe passes through floors or walls are sealed gas tight so that no refrigerant can leak from one apartment into another along any portion of the system. Liquid line tubing is spiraled in the outer pipe to facilitate assembly and to allow for expansion and contraction. Each refrigerator can be connected or disconnected without affecting any other refrigerator.

A safety valve is mounted on the topmost "branch junction box" with its outlet extended to discharge above the roof. A pressure responsive element near the compressor will open the motor circuit in case the suction line pressure rises above a predetermined point less than the pressure at which the safety valve is set to discharge.

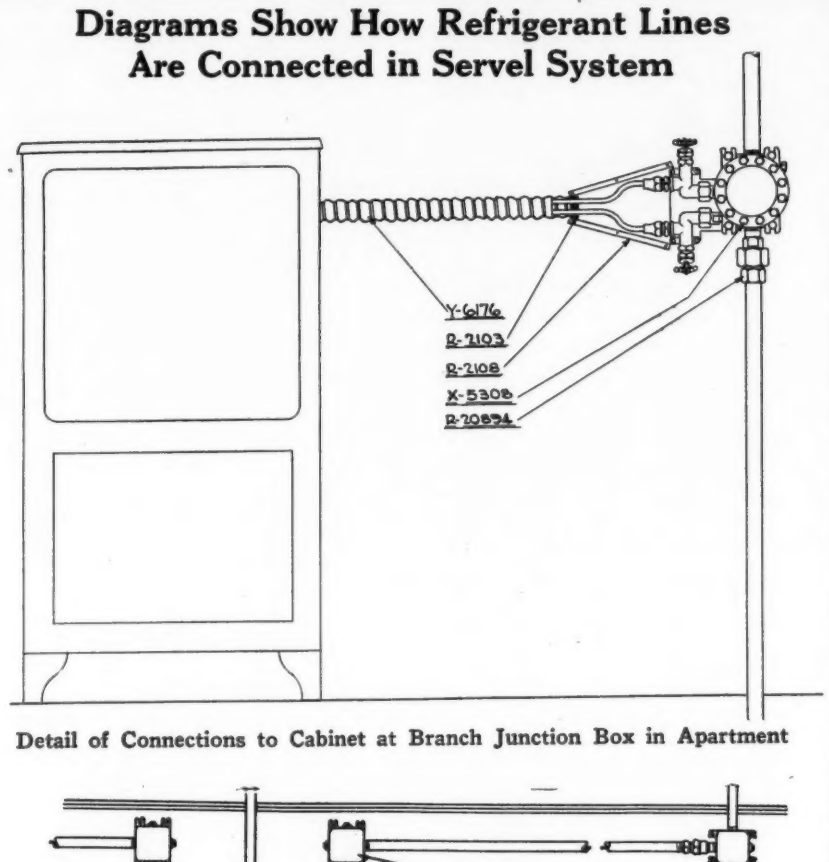
Listed by Underwriters

This system was the subject of a report made April 12, 1929, by Underwriters' Laboratories, Chicago, entitled, "Safety Appliance No. 517." This report states: "The design and construction of the various items of equipment used in this system are regarded as providing safety equivalent to that contemplated by the National Board of Fire Underwriters' code governing multiple installations. When installed in accordance with the manufacturer's specifications, the system offers a reasonable protection against the hazards involved in the use of such system."

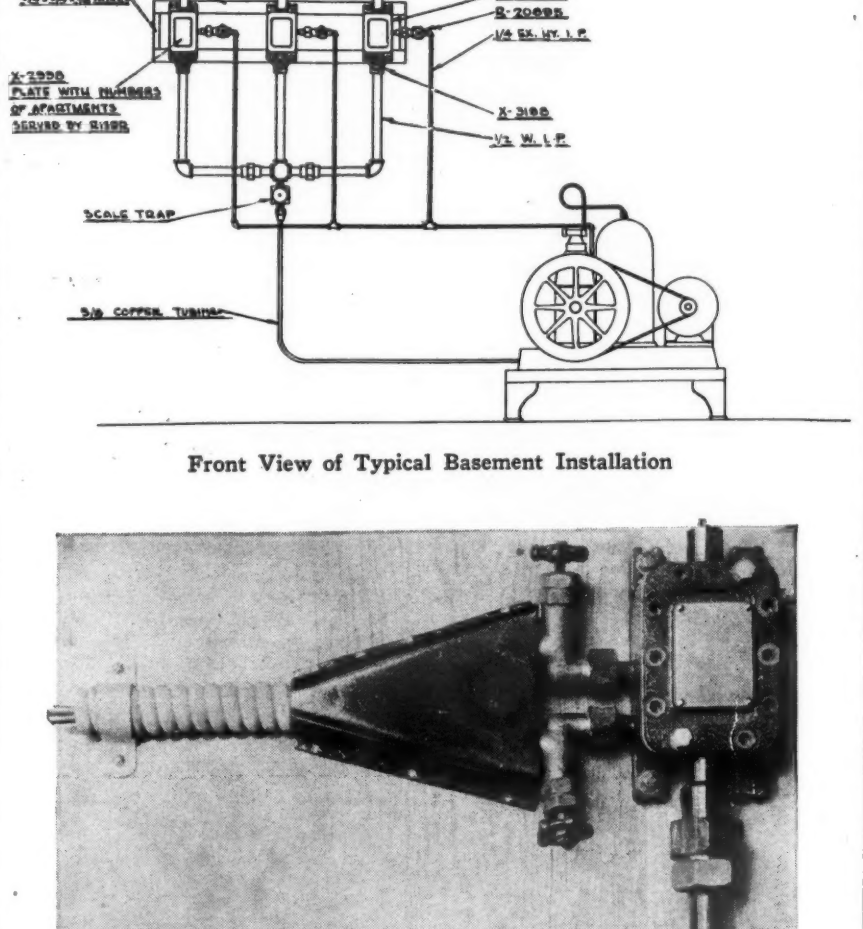
Fresno Frigidaire Corp. Installs Equipment at Coarsegold Inn

Coarsegold Inn, situated on one of the best gold mining locations in California, has recently had Frigidaire equipment installed by the Frigidaire Sales Corp. of Fresno, Calif.

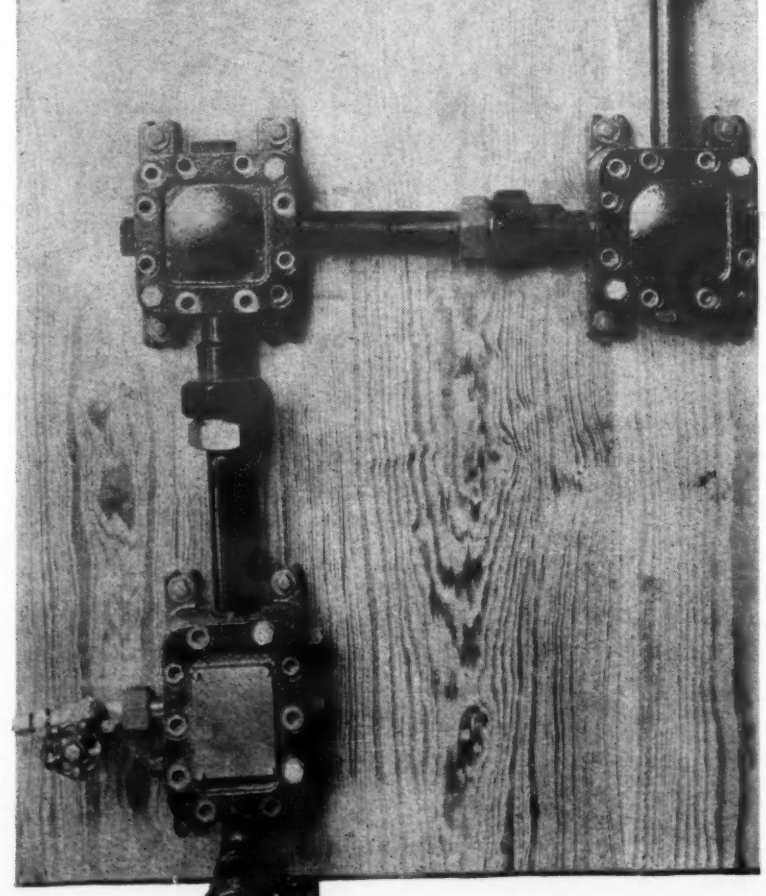
Diagrams Show How Refrigerant Lines Are Connected in Servel System



Detail of Connections to Cabinet at Branch Junction Box in Apartment



Front View of Typical Basement Installation



The latest design has round junction and branch boxes instead of the square type shown above.

HOLDS INTERVIEWS WITH 397 PROSPECTS HIRES 82 SALESMEN

"THE problem of conducting a sales campaign is closely bound up with the problem of selecting and training salesmen," says Leslie I. King, sales manager of the Cushman Refrigeration Co., General Electric refrigerator distributors at Cleveland. "Unless salesmen are sound, sales theories fall flat.

"Since the beginning of this year I have interviewed 397 prospective salesmen. Of this number I hired 82. And 51 remain with the organization. That is a very low turnover, as sales organizations of this type go.

"I absolutely demand three qualities of a salesman—obedience, punctuality, and ability to assimilate information. Before I hire a man I know whether or not he has these qualities. I know, because I follow this practice:

"Suppose I interview a man Monday morning. I tell him to go out, learn something about the General Electric refrigerator and report to me at 2 p. m. Wednesday. I suggest that one place where we can learn about our product from an unbiased standpoint is the Electrical League's exhibit of everything electrical for the home.

"If the prospective salesman comes back on Wednesday, I know he is obedient. If he comes at 2 p. m. I know he is punctual. If he comes with information about our refrigerator, I know he is capable of securing and assimilating knowledge.

"When I hire a saesman I give him literature outlining the twelve outstanding features of our refrigerator. He learns these forward and backward, and goes out into the field. Thrice each week he comes into headquarters for two hours and takes individual instruction from a sales teacher. This routine is continued for two weeks.

"Thereafter, each sales crew comes into the office three times a week for a two-hour interval and considers its sales problems jointly under the guidance of a supervisor. And each Saturday morning there is a meeting of the entire sales force. I take personal charge of this.

"I know our method of selecting salesmen, training them, and selling our merchandise is sound, because it is producing results. Every salesman on our force is showing very close to maximum results in sales per man per time unit.

"And we do not permit knocking the other fellow or his product. There was a day when many salesmen believed that the best way to sell a given brand of article was by drawing attention to the shortcomings of competitive products.

"But that was before modern scientific salesmanship was born. Salesmanship today is based on practical understanding and psychology. And anyone who understands sales psychology knows that knocking is very destructive to the knocker himself.

"Knocking is wrong because of two excellent psychological reasons:

"1. The man who knocks has to be in an antagonistic frame of mind, and a man in such a frame of mind cannot sell.

"2. Knocking draws the attention of the prospect to unpleasant things. And, to sell people, you must keep their minds on pleasant things.

"Therefore, we avoid knocking in our organization. At no time during the preliminary training of our salesmen or during the training they receive after they have become full-fledged salesmen do we display a picture of any rival refrigerator, nor do we draw attention in any way to any feature of a competitive article. Instead, we keep hammering away at the merits of our own refrigerator—and these merits are ample to give us all the sales ammunition we need.

"Of course, my application of the principles of psychology to salesmanship does not stop with the elimination of the knocking problem. It runs through our entire sales practice.

"For instance, I believe the time-honored method of splitting sales activity into the three divisions of approach, presentation and closing is obsolete.

"I believe the following steps are the logical ones, at least so far as the selling of electric refrigerators is concerned:

"1. Locate the buying power.

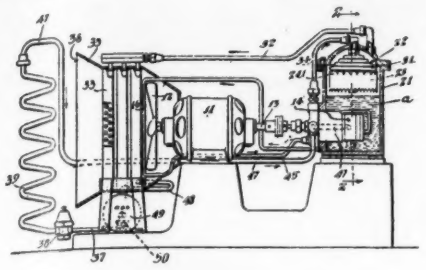
"By this I mean, find the person who controls expenditures of the family. Sometimes it's the husband, sometimes the wife. But find out who it is, and concentrate on selling that person. Often it is necessary to sell both husband and wife.

"2. Learn what particular feature of your product appeals to the prospect most strongly.

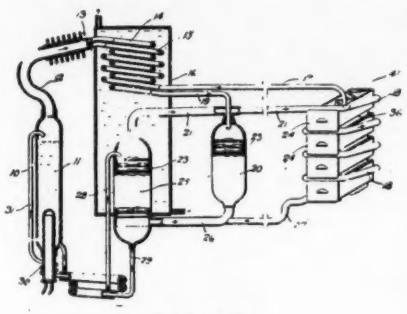
"Many salesmen becloud their sales arguments and confuse the prospect by talking about a score of features when one feature is enough to effect a sale. In your first talk with the prospect you can learn what feature has the strongest appeal—economy, health, convenience, cleanliness, labor-saving. Upon reflection, anyone realizes that the salesman who stresses child health when selling an electric refrigerator to a childless family is wasting his time.

"3. Having found the feature of greatest appeal, hammer away at it until the sale is made."

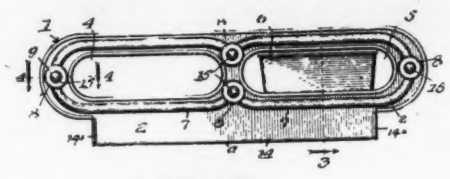
Refrigeration Patents Issued October 1, 8, 15



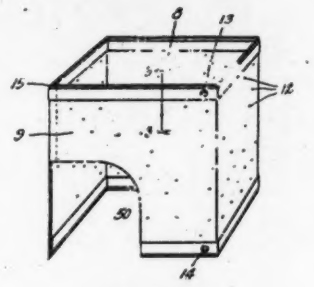
1,732,039



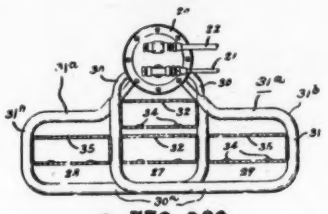
1,729,625



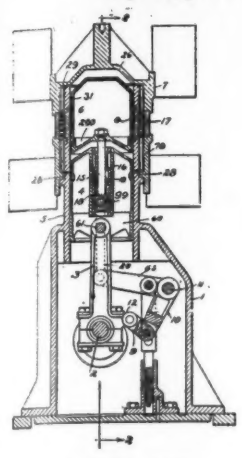
1,730,575



1,731,630



1,732,090



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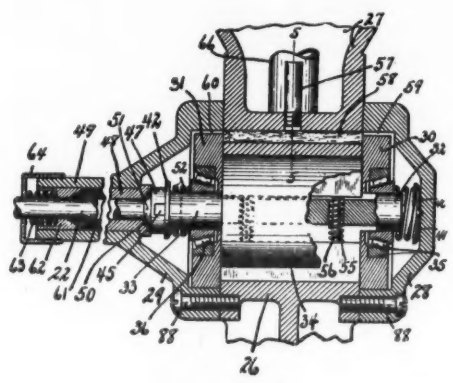
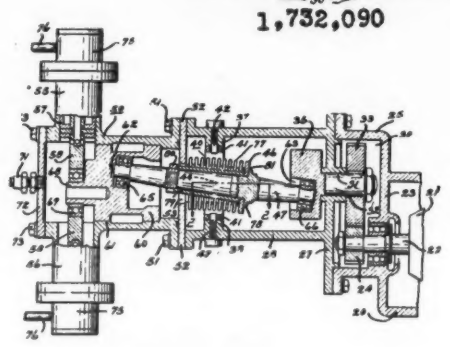


1,730,145



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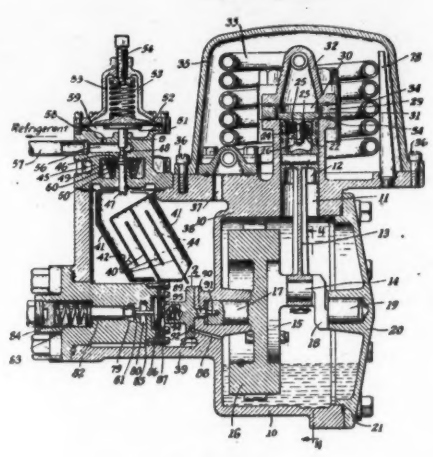

1,731,116

NOTE—The following refrigeration patents were issued by the United States Patent Office during the period from October 1 to October 15, inclusive.

ISSUED OCTOBER 1

1,729,625—REFRIGERATOR. Carl Georg Munters, Stockholm, Sweden, assignor to Electrolux Servel Corporation, New York, N. Y., a Corporation of Delaware. Original application filed Nov. 27, 1926, Serial No. 151,060, and in Sweden Jan. 9, 1926. Divided and this application filed Sept. 9, 1927. Serial No. 218,417. 4 Claims. (Cl. 62—119.5.)

1. An evaporator for absorption refrigerating apparatus comprising a vertically extending coil adapted for flow of liquid continuously downward therethrough, means for forming a series of pools within said coil, means to supply liquid cooling agent to the upper part thereof, means to supply an inert gas to the upper part thereof and means to withdraw gas from the lower part thereof.

1,729,638—REFRIGERATED SHOW CASE. Ernest Zelenka and Anthony Theis, Chicago, Ill.; said Theis assignor to said Zelenka. Filed Apr. 7, 1926. Serial No. 10,276. 9 Claims. (Cl. 62—37.)

1,729,720—THERMOSTATIC CONTROL FOR ICE MACHINES AND THE LIKE. William G. Hartwig, Chicago, Ill., assignor to E. J. Magerstadt, Chicago, Ill. Filed Apr. 3, 1920. Serial No. 370,922. 2 Claims. (Cl. 200—98.)

1,730,116—COMPRESSOR FOR REFRIGERATING MACHINES. Carl P. Brockway, Toledo, Ohio, assignor to Industrial Research Corporation, Toledo, Ohio, a Corporation of Delaware. Filed June 6, 1924. Serial No. 718,189. 3 Claims. (Cl. 230—203.)

1. In a refrigerating machine, a casing, a compressor therein, a relatively large spiral gear within said casing, a driving connection between said gear and compressor, a power shaft extending through one wall of said casing, a relatively small spiral gear fixed to said shaft, meshing with said first named gear, and a solid thrust bearing between said shaft and wall, whereby the reaction of the teeth on the large gear against the teeth on the small gear holds the parts of said thrust bearing in close engagement to form a seal in the wall about said shaft while the compressor is being operated.

1,730,139—HEAT - EXCHANGING APPARATUS. James M. Harrison, Cleveland, Ohio. Filed May 16, 1928. Serial No. 278,199. 3 Claims. (Cl. 257—245.)

1. A heat exchanger comprising a plurality of elements each of which consists of two sheet metal side plates secured together along their edges, spacers between said elements, inlet and discharge headers extending transversely of said elements and welded to the edges thereof, and the edges of the elements having openings into said headers.

1,730,145—REFRIGERATING APPARATUS. William O. Hildreth, Syracuse, N. Y., assignor to The Lamson Company, Syracuse, N. Y., a Corporation of Massachusetts. Filed Apr. 16, 1926. Serial No. 102,371. 9 Claims. (Cl. 230—153.)

1. An apparatus of the class described comprising a cylindrical casing, cylinder heads at opposite ends of and secured to the casing, end plates of greater diameter than the internal diameter of the casing and extending across the opposite respective ends of the casing and located within the respective cylinder heads, bearings in said end plates, a rotor within said casing having a shaft journaled in respective bearings in the end plates, and springs for maintaining the end plates in contact with the casing.

1,730,153—INSULATED TANK. Harvey B. Lindsay, Evanston, Ill., assignor to Dry Zero Corporation, Wilmington, Del., a corporation of Delaware. Filed Dec. 16, 1927. Serial No. 240,451. 8 Claims. (Cl. 154—44.)

ISSUED OCTOBER 8

1,730,486 — REFRIGERATION. Alfred Morris Thompson, Newark, N. J., assignor to Joseph Mercadante, New York, N. Y. Filed Jan. 27, 1928. Serial No. 249,799. 4 Claims. (Cl. 62—95.)

2. In a refrigerating unit, a header, a plurality of circulating passages connected with said header, and a solid mass of metal having a large heat absorbing capacity disposed within said header and spaced from the walls thereof for co-operating with a refrigerant in maintaining the unit at a low temperature.

1,730,488—REFRIGERATED SHOW CASE. Karl Albert Weber, Los Angeles, Calif., assignor to Weber Showcase & Fixture Company, Los Angeles, Calif., a corporation of California. Filed Aug. 11, 1926. Serial No. 128,573. 13 Claims. (Cl. 62—101.)

1. In a refrigerated showcase, the combination of insulated sides, bottom, top and end sections forming an enclosed case, a plurality of doors at the rear of the case, a container mounted within the said case adapted to contain a brine solution, means for cooling the brine solution, means for insulating the said container on the exterior thereof from the interior of the said case, a circulating coil connected with the said container and extending longitudinally outward therefrom, and means for circulating the brine solution from the container through the said coil.

1,730,494—REFRIGERATING APPARATUS. Harry W. Dyer, New York, N. Y. Filed May 8, 1925. Serial No. 28,963. 11 Claims. (Cl. 62—49.)

1,730,580—REFRIGERATING MACHINE Ivar Lundgaard, Worcester, Mass., assignor to Devon Manufacturing Company, Boston, Mass., a corporation of Massachusetts. Filed Aug. 5, 1926. Serial No. 127,292. 31 Claims. (Cl. 62—136.)

1. In refrigerating apparatus for using a gaseous mediating fluid having a compression piston reciprocating in a compression chamber, a shifter piston reciprocating in an expansion chamber, and a duct between the chambers, said chambers being in a common cylinder and said pistons having overlapping paths of movement, a pair of synchronized orbit generating pivots, one end of a connecting rod engaging each pivot. means connecting the other end of one rod to the compression piston and the other end of the other rod to the shifter piston. said orbits, connecting rods, and means being so disposed and synchronized that the piston and shifter will move downwardly substantially together during a portion of their down stroke and will be spaced during another portion of their travel.

1,730,663—REFRIGERATING APPARATUS. Conrad B. Krause, Cleveland, O. Filed Feb. 20, 1926. Serial No. 89,575. 4 Claims. (Cl. 62—116.)

1. In refrigerating apparatus, the combination of a base, a plurality of pillars secured to said base, a motor-driven pump mounted on said base, a partition carried by said pillars, a refrigerating chamber carried by said partition, a member attached to said pillars at the upper end thereof and adapted to support a water-container, a cooling coil surrounding said pillars and supported thereby above said chamber, a refrigerating coil in said chamber, and connections between said coil and said pump whereby the refrigerant is circulated.

1,730,680—ICE CASING FOR REFRIGERATORS. Claudius Nielsen, Detroit, Mich. Filed June 10, 1926. Serial No. 114,886. 2 Claims. (Cl. 62—89.)

1,730,685 — WINDOW REFRIGERATOR BOX. William J. Ramsey, Red Wing, Minn. Filed Dec. 23, 1927. Serial No. 242,229. 3 Claims. (Cl. 312—101.)

1,730,728—BEVERAGE DISPENSING AND COOLING APPARATUS. Louis W. Hassensall, Aiken, S. C. Filed Jan. 27, 1928. Serial No. 249,958. 1 Claim. (Cl. 62—147.)

1,730,839—COOLING CHAMBER. Wilfred R. Bendy, Chicago, Ill. Filed July 19, 1927. Serial No. 207,007. 8 Claims. (Cl. 34—6.)

1,730,922—METHOD AND APPARATUS FOR REFRIGERATION. Crosby Field, Brooklyn, N. Y., assignor, by mesne assignments, to Flakice Corporation, a Corporation of New Jersey. Field Dec. 12, 1927. Serial No. 239,301. 3 Claims. (Cl. 62—177.)

3. The process of refrigerating consisting of mixing crushed ice and water, supplying said mixture to one or more cooling devices, and returning said mixture to said receptacle after being utilized in said cooling devices.

1,730,923—PACKAGE AND MEANS FOR MAKING THE PACKAGE. Crosby Field, Brooklyn, N. Y. Filed Oct. 7, 1927. Serial No. 224,541. 7 Claims. (Cl. 62—1.)

1,730,924—PACKAGE AND MEANS FOR MAKING THE PACKAGE. Crosby Field, Brooklyn, N. Y. Original application filed Oct. 7, 1927. Serial No. 224,541. Divided and this application filed Sept. 20, 1928. Serial No. 307,081. 4 Claims. (Cl. 62—1.)

1,730,925—PACKAGE AND MEANS FOR MAKING THE PACKAGE. Crosby Field, Brooklyn, N. Y. Original application filed Oct. 7, 1927. Serial No. 224,541. Divided and this application filed Sept. 20, 1928. Serial No. 307,082. 3 Claims. (Cl. 62—1.)

1,731,009—REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Apr. 30, 1923. Serial No. 635,434. 11 Claims. (Cl. 74—14.)

1. A power transmitting device comprising in combination a wall, a wabbling bar passing through the wall, a flexible tubular diaphragm surrounding the bar, a gimbal member secured to the bar, and a gimbal member surrounding the diaphragm, said gimbal members being pivoted together.

1,731,044—COMPRESSOR. John O. Carrey, St. Louis, Mo., assignor to Carrey-Morse Engineering Company, St. Louis, Mo., a Corporation of Missouri. Filed May 14, 1926. Serial No. 109,086. 7 Claims. (Cl. 330—184.)

1,731,175—MEANS FOR SCORING ICE BY HYDRAULIC AND FLUID PRESSURE. Robert H. Roark, Waco, Tex., assignor to The Perfection Ice Scoring Machine Company, Waco, Tex. Filed Nov. 7, 1927. Serial No. 231,721. 8 Claims. (Cl. 125—13.)

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1,731,432—AIR-CONDITIONING APPLIANCE. Charles A. Moore, Edina, Minn. Filed Jan. 3, 1927. Serial No. 158,765. 9 Claims. (Cl. 261—20.)

1,731,539—KEEPING MILK AND SIMILAR SUBSTANCES OR LIQUIDS COOL WHILE IN TRANSIT. Erik A. Pearson, Portland, Ore. Filed Dec. 5, 1927. Serial No. 237,920. 3 Claims. (Cl. 62—92.)

1,731,546—REFRIGERATION. Jesse C. Smith, New York, N. Y. Filed Apr. 7, 1922. Serial No. 550,291. Renewed Aug. 30, 1929. 14 Claims. (Cl. 62—5.)

1. A refrigerating device comprising a generator, a hot plate, means for feeding liquor to said hot plate, a condenser, an expansion coil receiving the condensed liquid from the condenser, an absorber receiving the gas from the expansion coil, a pump chamber connected to the absorber, means for feeding generator gas to said chamber, condensing the gas to lower the chamber pressure below the absorber pressure. thereby causing the liquor to pass from the absorber to the chamber, valve mechanism in the pump chamber for controlling the gas admission thereto, said mechanism being controlled by the liquid level in the chamber, and a conduit connecting the pump chamber to the generator.

1,731,575—EVAPORATOR UNIT. Rollin M. Hyde, Detroit, Mich., assignor to McCord Radiator & Mfg. Co., Detroit, Mich., a Corporation of Maine. Filed Sept. 22, 1927. Serial No. 221,160. 6 Claims. (Cl. 62—95.)

1. A refrigerating unit, comprising two or more sections, each section being formed from a single blank of sheet metal folded on itself to provide the sections with foldably connected front and rear walls, the walls of each section having registering grooves and openings therein, the grooves being pressed out of the opposed walls of the sections about the openings therein and forming the refrigerant circulating channels of the sections, and means connecting the sections together and providing communication between the channels thereof

1,731,578—ICE CREAM PACKAGE. Ridgway R. Kennedy, Philadelphia, Pa., assignor to Abbotts Dairies, Inc., Philadelphia, Pa., a Corporation. Filed Nov. 27, 1928. Serial No. 322,118. 4 Claims. (Cl. 62—92.)

1,731,604—ICE AND BUTTER SERVER Edna J. Allen, Portland, Ore. Filed Jan. 19, 1928. Serial No. 247,919. 3 Claims. (Cl. 62—10.)

1,731,630—REFRIGERATION CONDENSING MECHANISM. Thomas J. Little, Jr., Detroit, Mich., assignor to Copeland Products, Inc., Detroit, Mich., a Corporation of Michigan. Filed June 14, 1926. Serial No. 115,794. 9 Claims (Cl. 257—39.)

1. A refrigerating system condensing device comprising superposed sheets of metal spaced apart and having their edges sealed to form an enclosure between them, the faces of said sheets being joined together at intervals, and the sheets being bent to form a chimney effect.

1,731,710—HEAT - TRANSFORMING PROCESS AND APPARATUS. Ransom W. Davenport and Harry S. Estler, Detroit, Mich., assignors to Chicago Pneumatic Tool Company, New York, N. Y., a Corporation of New Jersey. Filed June 10, 1926. Serial No. 114,900. 22 Claims. (Cl. 62—8.)

1. In a closed thermodynamic cycle involving the taking in and the ejecting of heat and the causing of variations in the partial pressures of a working substance having liquid and gaseous components, the process of transforming heat which comprises continuously forcing the working substance through the cycle and maintaining the quantity of gas passing through the cycle substantially constant independently of the quantity of heat taken into the cycle.

1,731,711—REFRIGERATING AND ICE-MAKING PROCESS AND APPARATUS. Ransom W. Davenport, Detroit, Mich., assignor to Chicago Pneumatic Tool Company, New York, N. Y., a Corporation of New Jersey. Filed Mar. 18, 1927. Serial No. 176,345. 18 Claims. (Cl. 62—116.)

1. In a refrigerating system operating intermittently and utilizing a plurality of refrigerating elements in separate chambers, one of which operates at a sufficiently low temperature to freeze liquids, the process of holding over the low temperature in the freezing element which comprises utilizing the surface condensation of the other to form a coating of frost on the freezing element.

1,731,777—UPRIGHT BEVERAGE-COOLING CABINET. Harry W. Hibbard, Lyndhurst, Ohio, assignor, by mesne assignments, to Hibbard Cabinets, Inc., Cleveland, Ohio, a Corporation of Delaware. Filed June 3, 1926. Serial No. 113,410. 8 Claims. (Cl. 62—34.)

1,731,872—ICE-CUTTING MACHINE Nicholas D. Schons, Nicollet, Minn. Filed Feb. 15, 1928. Serial No. 254,423. 5 Claims. (Cl. 262—20.)

1,732,039—REFRIGERATING MACHINE AND METHOD OF REFRIGERATION. Joseph W. Cuthbert, La Canada, Calif., assignor, by direct and mesne assignments, to Rotorite Corporation, Chicago, Ill., a Corporation of Illinois. Filed Mar. 5, 1925. Serial No. 13,086. 13 Claims. (Cl. 62—115.)

1. The method of refrigeration consisting in discharging a gaseous refrigerating agent and a lubricant into the cylinder of a compressor, compressing the mixture of gas and lubricant, abstracting heat from the compressor with a cooling medium, exposing the compressed mixture to heat radiated by the cooling medium while maintaining any liquefied refrigerating agent out of contact with the cooling medium to drive off the gas, cooling the gas to liquefy it, releasing the liquid refrigerating agent in a zone of lower pressure to gasify said agent, returning the gaseous agent to the compressor cylinder.

1,732,090—REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Nov. 27, 1925. Serial No. 71,515. 27 Claims. (Cl. 62—95.)

10. A cooling unit for a mechanical refrigerator comprising in combination a reservoir adapted to contain refrigerant, a central heat transfer section extending downwardly from said header, said central section including refrigerant duct means connected with said reservoir and extending rearwardly a substantial distance, and refrigerant duct means extending rearwardly a substantial distance and also in intimate metallic contact with said section and extending laterally therefrom to provide a support for an elongated ice tray.

1,732,091 — COOLING UNIT FOR MECHANICAL REFRIGERATORS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Feb. 6, 1926. Serial No. 86,587. 22 Claims. (Cl. 62—95.)

1,732,092—REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Feb. 6, 1926. Serial No. 86,588. 49 Claims. (Cl. 62—95.)

1,732,093—REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Oct. 26, 1927. Serial No. 288,935. 16 Claims. (Cl. 62—95.)

1,732,094—REFRIGERATING APPARATUS. Jesse G. King, Dayton, Ohio, assignor, by mesne assignments, to Frigidaire Corporation, a Corporation of Delaware. Filed Oct. 27, 1927. Serial No. 229,243. 23 Claims. (Cl. 62—95.)

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Note.—The following refrigeration patent was omitted by an oversight from a list published in the October 9 issue of the NEWS, pages 30-31:

1,728,984—MULTIPLE-PANED WINDOW. Raymond H. Starr, North Kansas City, Mo. Filed July 5, 1927. Serial No. 203,411. 4 Claims. (Cl. 20—56.5.)

1. In a window, a frame having a rabbeted edge, a sealer comprising plastic material disposed in the frame to receive the edges of glass panels, a plurality of panels having edges contacting said plastic material, glazing strips spacing said panels, means securing the strips to the frame to fix the panels in position, portions of said plastic material being deflected between one of said strips and one of said panels, and a portion of said plastic material being upturned against the outer side of the outermost of said panels, and a stop fixed to the frame and engaging said last named portion of plastic material with said outer panel side.